# American Aviation

25c *The News Magazine of Air Transportation* JULY 15, 1947


## Unnecessary Middle Man

IT IS THE economic make-up of a railroad that it thinks in terms of carloads and that less-than-carload shipments are not only a nuisance, but very costly to transport over the fixed ribbons of steel.

Evidently it was inevitable that a new class of business men should appear on the horizon at some early stage of railroad development, a class of entrepreneurs who would serve as agents for the mutual benefit of the railroads and the shippers of less-than-carload lots—to perform, in short, a middleman service which the railroads refused to undertake.

This class of agent became known as a freight forwarder and he made his money by his ability to consolidate a large number of small shipments into the larger bulk carload units which railroads prefer to handle. It is not true, as generally thought, that the freight forwarder by his activities actually performed a less expensive service to the public, for the record is otherwise, but he did provide a *faster* service, and he did relieve the railroads of loading and unloading expenses, transfer expense, and pick-up and delivery service expense. And he effected heavier car loading and consequently, a higher car mile revenue for the railroad.

It is not for us to say whether the railroads could have done the job themselves had they been more aggressive and progressive in the earlier stages of rail transportation, but it is true that the hundreds of relatively short lines, plus changes of gauge in the early days, provided a wide-open opportunity for the forwarder. The chances are that the creation of a class of freight forwarders was more or less a natural development and since they did two vital things—provided faster service for the shipper and eliminated numerous costs for the railroad—it can be said that they carved for themselves a reasonably legitimate place in the scheme of things.

Then many years later along came the airplane in regular commercial service and in due course along came all-cargo services, and masses of existing freight forwarders and hundreds of new forwarders organized on paper only, began applying to the Civil Aeronautics Board for permission to become indirect air carriers, thus attempting to occupy pretty much the same standing in air transport that the forwarder

*(Turn to page 8)*

**WAL Maintenance-Engineering Head**

Stanley R. Shatto, who resigned as vice president-engineering and maintenance of Continental Air Lines effective July 15, has been appointed v.p. in charge of maintenance and engineering for Western Air Lines. He brings 18 years of airline experience to his new post. He succeeds William Maxfield, who resigned as WAL's director of maintenance.

## *In This Issue*


**Airline Finances Take Upward Turn** ..... 15

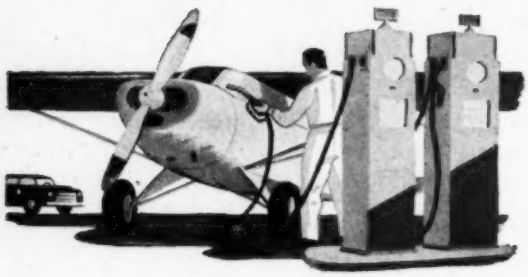
**Behind Northwest's Orient 'Invasion'** ..... 18

STANDARD OF CALIFORNIA'S

# PLANE FAX

A page of service tips for private flyers and fixed-base operators

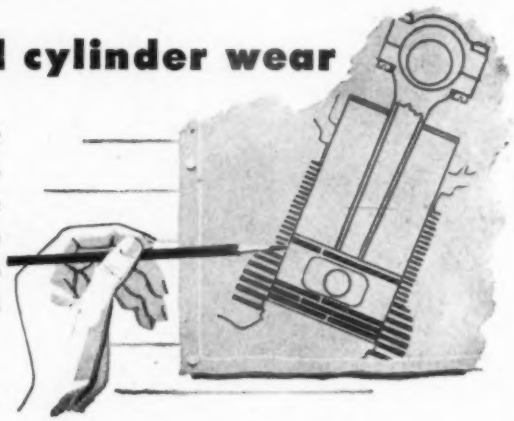
## Use of automotive fuels in aircraft hazardous



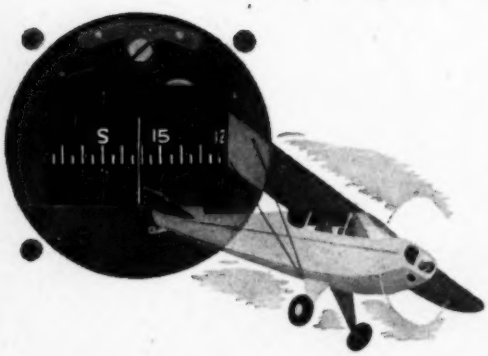
Gasolines engineered for automotive engines are not suitable for aircraft because of their high lead content which sometimes results in lead fouling on aircraft-type spark plugs... also because of the hazard of vapor lock, which may result in engine failure in the air. Aircraft engines require a perfectly balanced fuel such as Chevron Aviation Gasoline to give easy starting, smooth idling and dependable performance at high altitudes.

## How "RPM" reduces ring and cylinder wear

The most difficult place to lubricate in aircraft engines is the upper ring travel. This is where temperatures are highest and, since ordinary oils move from hot to cooler areas, upper cylinder walls are often left bare of lubricant. RPM Aviation Oil is compounded to stick to hottest areas and save ring and cylinder wear. "RPM" also contains a "detergent" which keeps pistons and cylinder walls clean, rings free and prevents ring-groove deposits.



## Pamper your compass to stay in the groove

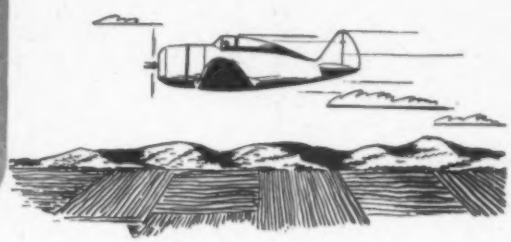



During cross-country flights your compass is the boss. That's why it deserves a little pampering and extra care. Experienced pilots depend on RPM Compass Liquid to do the job. It meets exacting fluorescent tests and will not affect the luminous paint on instruments. Its controlled viscosity provides correct damping of compass dials at all temperatures.

**CHEVRON NATIONAL CREDIT CARDS** are good at airports throughout the United States and Canada. Ask your Standard Airport Dealer in the West... or write to Standard of California, 225 Bush St., Room 1618, San Francisco 20, Cal.

# The speed of yesterday's "headline flight" is all in today's work for United's MAINLINER 300

*September 2, 1939, Frank W. Fuller, Jr. won the Vincent Bendix Trophy Race from Union Air Terminal, Burbank, California, to Cleveland, Ohio, in 7 hours, 14 minutes, with an average speed of 282 m.p.h., in a Wasp-powered Seversky racer.*



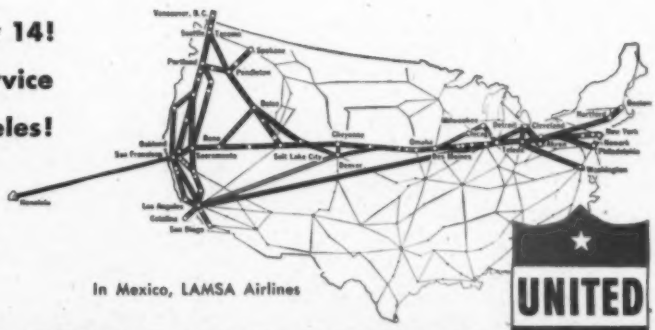
A MAN SPENDS the evening in New York. At midnight he boards United's MAINLINER 300 . . . *and eats breakfast in San Francisco!*

Another leaves Chicago at dinnertime on the MAINLINER 300 . . . *and is in San Francisco before midnight!*

San Francisco to Chicago between breakfast and dinner . . . San Francisco to Hawaii between mid-morning and late afternoon! Headline-making speed flights? No! Just ordinary, everyday schedules for the great new Douglas DC-6 over United's strategic Main Line Airway.

With these luxurious airplanes, United is inaugurating a fleet of blue-ribbon, premium-service flights to offer travelers the utmost in speed, luxury, comfort and convenience.

**Beginning July 14!**
**Direct Mainliner 300 Service**
**Between New York and Los Angeles!**



In Mexico, LAMSA Airlines

**THE MAIN LINE AIRWAY**

PASSENGERS · MAIL · EXPRESS · FREIGHT

UNITED AIR LINES

## ——FORTNIGHTLY REVIEW——

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*Reason for "cautious optimism" in airline earnings is seen for domestic airlines in heavy traffic months ahead. (Page 15)*

*TWA and Capital Airlines reveal abandonment of decentralized systems in changes dictated by economy programs. (Page 16)*

*Behind-the-scenes story of vast preparation preceding the beginning of Northwest Airlines' scheduled service to the Orient. (Page 18)*

*Airline members of the IATA North Atlantic Traffic Conference unanimously agree that trans-Atlantic passenger fares should be held at present level of 9½c per mile until Feb. 28, 1948. (Page 20)*

*Braniff Airways extends its automatic reservations system to Mid-Continent and Continental Air Lines, enabling these carriers to sell space to points on Braniff's route without requesting confirmation. (Page 25)*

*Interim reports of the President's Special Board of Inquiry on Air Safety feature recommendations on weight limitations and runway restrictions for four-engined aircraft; also a warning that appropriations for air navigation and landing aids must be increased if air crashes are to be reduced. (Page 31)*

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### Congressional Scoreboard:

**Merger:** Armed Forces merger bill, establishing Air Forces on equal status with Army and Navy, is heading for passage during present session.

**CAA:** Slated to receive $119,234,814 for current fiscal year, compared with $124,848,120 in fiscal '47. This is more than $70 million under Budget Bureau requests, with funds for air navigation and landing aids greatly curtailed.

**AAF:** If Senate follows recommendations of Gen. Eisenhower that $103,000,000 be added to House figures for Army Air Forces funds, then contracts probably will be let with Curtiss-Wright for new P-87 jet and with Republic Aviation for the XF-12 photographic plane. This would enable Republic to resume work on Rainbow, commercial version of XF-12, stopped last January because of airline concellations.

**Navy:** Contract authorization for purchase of 53 patrol planes for $78,000,000, understood to be the Lockheed P2V and an advanced version of the Martin Mariner, is contained in Senate increase over the House-passed Navy Appropriation bill. Allowance of additional $28,890,000 for operation of 5,800 Navy aircraft, instead of 5,400 in House bill, also is provided in Senate measure.

**Air Policy:** While the Hinshaw National Aviation Council bill has passed the House, the Brewster air policy bill is bogged down in the fight over prospective Air Coordinating Committee domination. Meanwhile, President Truman may appoint a "Morrow Board" as high government officials are urging.

**Sea-Air:** Advocates of sea-air rights are hopeful of favorable report from House Interstate and Foreign Commerce Committee before July 26 adjournment, but bill has no chance of passage.

**Chosen Instrument:** Issue apparently dead for this session, with no further action likely.

•

### Non-Scheduled Traffic on Decline

CAA study, released last week, forecasts that non-scheduled air carriers will handle "a steadily diminishing portion of domestic passenger and freight traffic in 1947, as the scheduled airlines push sales and improve their facilities." CAA estimates that on Jan. 27, 1947, approximately 3,585 non-scheduled carriers were operating. About 1,000 air carrier operating certificates

*(Turn to page 6)*


# AMERICAN AVIATION

*The News Magazine of Air Transportation*

**Vol. 11, No. 4** **July 15, 1947**

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WAYNE W. PARRISH

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# Martin Memo

**Published by The Glenn L. Martin Company**
**Baltimore 3, Maryland**

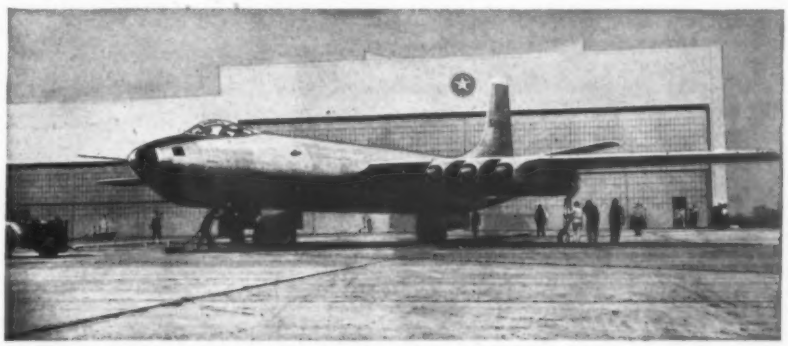
**On Leading Airlines Soon . . .** Here, the ultramodern Martin 2-0-2 airliner is shown in flight during CAA certification tests. Speedy Martin luxury liners will soon be a familiar sight at airports the world over when they go into operation for these great airlines and cargo carriers: Capital (PCA) . . . Eastern . . . Chicago & Southern . . . United . . . Northwest . . . Delta . . . Panagra . . . Cruzeiro do Sul (Brazil) . . . Aeroposta (Argentina) . . . Nacional (Chile) . . . Mutual . . . Flying Tiger . . . Air Borne Cargo . . . U. S. . . . Willis.

**Going Up . . . 235 Miles . . .** Rocketry is one of the more advanced research projects of the Martin Company. Now under construction is the Neptune, first of ten experimental rockets, 45 feet long, capable of flights to 235 miles above the earth's surface. These huge rockets, being built by Martin for the Navy, are the first all-American long-range missiles of supersonic speeds.

**As a Military Transport . . .** The Martin 2-0-2 offers many advantages. It cruises 100 m.p.h. faster than prewar twin-engine transports. It can carry 50 completely equipped troops or 15,000 pounds of cargo. Built-in features include new thermal anti-icing equipment . . . efficient van Zelm ailerons . . . tricycle landing gear . . . large cargo doors for easy loading and unloading.

**25,000 Flying Hours . . .** During static tests, the Martin 2-0-2 was subjected to wrenching and straining equivalent to 25,000 hours of flying or 10 years of average service. Results of these rigorous tests are further proof of the superiority of the Martin 2-0-2's advanced design and construction.

**Increased Profits for Airlines . . .** The new twin-engine Martin 2-0-2 carries 36 to 40 passengers (or 15,000 pounds of airfreight in the cargo version) at speeds 100 m.p.h. faster than the planes they supplant. But more important is the fact that this modern transport needs only 19 passengers (by ATA formula) to break even. Thus, airline profits with the Martin 2-0-2 can be as high as 50% of the total passenger payload. That's one of the big reasons 15 leading airlines have ordered Martin transports.



**Newest Jet Bomber . . .** The high-speed, long-range XB-48 was built by Martin for the Army Air Forces. Powered by six jet engines, it is the largest multi-jet conventional type plane yet constructed. The XB-48 also pioneers a new bicycle type landing gear developed by Martin for high-speed aircraft.

**Looking for Cold Weather . . .** To thoroughly test a new thermal anti-icing system, now standard equipment on all Martin transports, a Martin 2-0-2 was sent to Minnesota. Flying in the cold layers of air north of Minneapolis, the engineers and CAA representatives were able to choose varying types of icing conditions for their experiments. The system which involves passing heated air through the wing and tail assembly proved successful . . . the experiments were acclaimed by aviation experts as a big step forward in all-weather flying.

**"A Real Buy" Here's Why . . .** Martin has orders for more new transports than any other manufacturer. Through quantity production Martin is able to spread the cost of Martin transports over a larger number of planes, giving purchasers these great new airliners at low cost.

**Low-Cost Maintenance . . .** These are not windows in the Martin 2-0-2. They are a few of the numerous accessory compartment openings which provide easy access to the 2-0-2's electrical and hydraulic systems. These built-in timesavers mean low maintenance and servicing costs. The openings shown above are in the bottom of the fuselage.

Martin AIRCRAFT

Builders of Dependable Aircraft Since 1909

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# FORTNIGHTLY REVIEW

*(Continued from page 4)*

under CAR Part 42 have been issued to non-scheduled lines. CAA indicated that such operators handled more than 30,000,000 ton miles of freight in 1946, compared with 14,830,000, reported by the certificated airlines. Latter figure, however, does not include 23,786,000 ton miles of express, or 4,250,000 ton miles flown by American Airlines' Contract Air Cargo Division. CAA pointed out that few of the non-scheduled carriers showed a profit for 1946.

### 'Minimum' Aircraft Industry Studied

An intensive technical study of the aircraft manufacturing industry has been launched by Stanford University Research Institute under direction of the Air Coordinating Committee to provide a long-range basis for sound national defense policies. The report, expected to be ready early next year, will provide basis for recommendations on size and type of peacetime aircraft industry required in the future.

### Martin 3-0-3 Makes First Flight Test

The Martin 3-0-3 transport, pressurized sister ship of the 2-0-2, has successfully completed its first test flight, remaining in the air 57 minutes.

### Aviation Clinic Goes to Springfield

Fifth Annual National Aviation Clinic will be held at Springfield, Ill., Nov. 19-22, with Illinois Department of Aeronautics as official host. Main sessions will be in the House Chamber of the Illinois State Capitol, where a large gallery will be open to the public. Previous clinics were held in Oklahoma City.

### Cross-Wind Landing Gear Contracts

Two new contracts have been signed by CAA for design of cross-wind landing gear, one with Goodyear Aircraft Corp. for a castered gear on a DC-3, the other with Northrop Aircraft, Inc. for a feeder plane project. Northrop will build the gear and test it on their tri-motored Pioneer. The Goodyear contract involves $51,000, Northrop's $10,000, bring total of such CAA projects to seven with total commitments of $150,000.

### Navion, Swift Back in Production

Two widely-known lightplanes on which production had been suspended—the two-place Globe Swift and the North American four-place Navion—are going back into production under new managements. North American sold manufacturing rights and design of the Navion to Ryan Aeronautical Co., while major tangible assets of bankrupt Globe Aircraft Corp. were acquired by Texas Engineering and Manufacturing Company, of Dallas. Immediate resumption of production and delivery schedules on the Swift is planned at prices of $3,750 for the deluxe model and $3,250 for standard, reductions of more than $1,000. North American will continue the sale of its inventory of Navions, consisting of 127 planes, while Ryan is setting up for production.

## Names and Notes in the News:

Although **Douglas Aircraft** faces operational loss of $7,000,000 this year, it has granted workers 5c an hour wage increase costing $1,500,000 in 1947 . . . First of the doubledeck **Boeing Stratocruisers** slated to enter commercial service later this year rolled from the Seattle plant on July 2 . . . **Maj. Gen. Robert W. Harper,** of Seattle, Wash., has taken over command of Air Transport Command, succeeding Maj. Gen. Robert M. Webster, assigned to head First Air Force, Mitchel Field, N. Y. . . . The specially fitted Douglas DC-6, **Independence,** assigned to Air Transport Command for President Truman's personal use arrived in Washington July 1 after flight from Santa Monica in 6 hours, 40 minutes. It faces 100 hours of check-up flying before entering Presidential service. . . . National Mediation Board reported that four airlines—Braniff, National, Mid-Continent, and Western—are negotiating **new wage contracts** with pilots. Chicago and Southern late last month signed new pilot contract carrying substantially same pay schedules and working provisions as those in Eastern contract reported in AMERICAN AVIATION, July 1. . . . First of 15 prototype GA-2 **three-place amphibians** will be completed next April by Goodyear Aircraft Corp.

## International

### KLM and KNILM to Merge

KLM Royal Dutch Airlines and KNILM Netherlands Indies Airlines will merge in the near future, with all operations to continue under the KLM name and central management, according to reports from Java and the Netherlands. W. C. J. Versteegh, managing director of KNILM, will remain in Batavia for the time being to handle KLM's interests in the Far East. It is understood that the revolution resulting in formation of the semi-independent Federated States of Indonesia is the main reason for the merger decision.

### Dublin Rights Sought for U. S. Airlines

George A. Garrett, new U. S. Minister to Ireland, has indicated that one of his first efforts would be to seek permission for U. S. airlines to land at Dublin, Irish capital city. U. S. carriers now may land only at Shannon.

### Boston, Miami Open to Portuguese Transports

The U. S.-Portugal air transport agreement signed last December has been amended to permit Portuguese commercial aircraft to land at Boston and Miami as well as New York.

### U. S. Firms Modernize Turkish Airports

Westinghouse Electric Corp. and J. G. White Corp. have signed agreements with the Turkish Government to modernize the country's major existing airports and to construct five new fields. Total expenditure for the program will be more than $15,000,000, to be spent over a five-year period.

### LAV Standardizes on Connies

Linea Aeropostal Venezolana (LAV), the Venezuelan government airline, will standardize on Lockheed Constellations as four-engined equipment. LAV recently disposed of its two Douglas C-54's to Colonial Airlines for the latter's Bermuda services scheduled to start Aug. 1. As part of the deal, LAV acquired three of Colonial's DC-3's for domestic services.

### Australian National Carries U. S. Mail

The U. S. Post Office Dept. on July 10 began utilizing service of Australian National Airways for transportation of U. S. mail to Australia. In return, the Australian government will use Pan American Airways in addition to ANA.

### ICAO Council Adjourns

The Council of the International Civil Aviation Organization (ICAO) has adjourned until Sept. 2. At the final meeting early this month, the Council approved a meeting on facilitation of air travel to be held in Europe April 27, 1948, at a city to be selected later. It was agreed in principle to recommend limiting gross weight of aircraft to maximums specified by authorities of the manufacturing country.

# The Birdmen's Perch

By *Major Al Williams*, ALIAS, "TATTERED WING TIPS,"
Gulf Aviation Products Manager, Gulf Bldg., Pittsburgh 30, Pa.

**Okay, here's the story** we promised you:

The oldest pilot in the United States is Starr Nelson, of Delta, Colorado.

He's not 50. He's not 60. He's not 70.

*Mr. Nelson is 80 years old!*

He received his license at the age of 75. Before that he was an engineer on the "Rio Grande"; before that, a cowpuncher.

Nelson owns his own airport in Delta, which is in a valley. Just to get out of the valley Nelson has to climb 13,000 ft. in his two-control ship!

*Frequently he flies to L.A. simply to attend a dance.*

A widower, Nelson has five children, 17 grandchildren and two great-grandchildren. To Mr. Nelson we flap our Tattered Wing Tips in honest admiration and hope that his offsprings are as capable and competent pilots, and in as good physical condition, when they hit 80.

(We hope we are too!)

Mr. Nelson—just by being Mr. Nelson—has qualified for a Perch Pilot Commission, for our dough.

We're sending it today.

## HOW TO LOSE A LOT OF OIL

Every year we lose a lot of oil at our refinery. Actually we throw it away!

Sounds odd? Well, here's the story:

When we make Gulfpride Oil we refine good crudes by normal refining methods. The oil we get is as good as many you'll find on the market.

But this oil is not good enough to be labeled "Gulfpride." So what do we do?

We put this refined oil through the Alchlor process—an extra step that eliminates up to 15% of the oil. This 15% has the characteristics of tar—and would form carbon and sludge in your engine.

Because we take out more of the carbon and sludge formers, Gulfpride is the purest oil you can put in your engine.

Sure, the Alchlor process loses us a whale of a lot of oil . . . but the better oil it does make makes a whale of a lot of friends for Gulfpride.

And to us, that makes it worth it!

## LITTLE KNOWN FACTS DEPT.

Let's get going:

**"Glider-towing C-47's stretched from 6 to 8 inches!"**

That's a "Little Known Fact About Well Known Planes." It came from Robert Besse, Springville, N. Y. Because it was interesting enough to print . . . and because Mr. Besse *sent proof* of his "Fact," we are sending him a commission as Perch Pilot (bottom rung).

**"Despite increased speed and greater lift of the outside wing, it is not the high wing in a spin!"**

Robert G. Sommer, Gainesville, Fla. gets a commission for that one. *He sent proof, too.*

Donald Ogilvy, Scarsdale, N. Y., gets the third Perch Pilot's Commission this month with:

**"Eight airlines carried 104,980 passengers across the Atlantic in '46!"**

That's all there is to it. And after 5 "Facts" have been accepted, we promote you to Senior Perch Pilot. So mail in your "Fact," today!

**Gulf Oil Corporation and Gulf Refining Company... makers of**

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GULF AVIATION GASOLINE AND GULFPRIDE OIL
ARE AVAILABLE AT 500 AIRPORTS WHERE THE GULF
ORANGE DISC MEANS "READY TO SERVE YOUR NEEDS"
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# Editorial

(Continued from page 1)

occupies in rail transport. It should not be overlooked at this point that some of the largest applicants are controlled by surface transportation.

A short time ago the CAB in its general innocence about rail and cargo transportation and its occasional readiness to make hasty moves without digging very deeply into the files, came close to letting down the barriers and giving the freight forwarders an exemption which would have been at least a temporary and recognized foot in the door. It would have been a tragic and historical error had the Board made this move and Providence is to be thanked that the Board thought better of the action and postponed a decision until the pending freight forwarder case is concluded.

Everyone in aviation has been so busy since the war that there has been a general tendency when dealing with unfamiliar subjects to grasp at straws or the first high-sounding generality that comes along, and so it is to the full credit of the entire scheduled certificated airline industry that it is strongly opposing, through Air Cargo, Inc., the certification of forwarders as indirect air carriers.

Among the dangerously fallacious generalities which have been accepted by all too many, especially by some in the CAB and among the non-scheduled field, is that the air carrier is comparable to the railroad and, thusly, if the freight forwarder is an integral part of rail transportation, he must be accepted, per se, in the air carrier field.

But let's look further into this. Just why is the freight forwarder in existence in the railroad field? What does he do, how does he make a living, and what service does he perform?

In the railroad field he makes a legitimate living because of a recognized difference in transportation costs to the railroad of handling consolidated shipments in carload lots as distinguished from direct handling of less-than-carload lots by the railroad itself. The spread between LCL and CL operating costs is substantial. Because of the spread of costs there is a spread of rates. And because of a spread of rates, the forwarder makes a living. Not only does he expedite freight for the shipper, but he saves money for the railroad. In addition he permits the railroad to operate more efficiently—to obtain a higher utilization of equipment. Generally speaking, the shipper prefers to deal with a forwarder because the forwarder gives him better service than the railroad direct.

Okay. Now where does the forwarder intend to make his money in air transportation? From a similar difference in operating costs by the air carriers? By no means. He intends to make his money in air transportation because the airlines, in their experimenting with air freight rates, set up tariffs which gave very substantial reductions for volume shipments. Thus the forwarder could consolidate 160 hundred-pound packages into one shipment of 16,000 pounds, and collect the difference in rates. Just why they did it isn't quite clear, but the fact remains that the airlines kept the rate for small packages high, and the rates for such volume shipments as 16,000 pounds quite low.

No one can blame the forwarders for wanting to capitalize on a bargain, and a bargain has existed in volume rates for the past few years. But let us not veer from the point that whereas the forwarder serves a useful purpose in rail transportation because of a peculiar railroad operating cost factor, that same cost factor does not exist in air transport. The airlines *do have* a cost differential between handling small and large shipments, *but whatever difference of cost does exist is not affected one way or another by the activities of the forwarder.* Whereas the forwarder saves costs to the railroads, he would save the airline no cost, and, in fact, would increase the sales costs of the airlines because they would have to handle the less attractive small traffic which does not interest the forwarders.

Ponder this absolute difference of the basis for the forwarder's profit or economic means of existence. *With the railroads the forwarder makes his profit from a savings in costs afforded the carrier—while providing an improved service to the shipper. With the airlines the forwarder would make his profits from an enforced division of rates or a rate spread arbitrary because of his failure to afford comparable operational savings to the underlying carrier—and all without any benefit whatsoever to the shipping public.*

If the CAB certificates forwarders as indirect air carriers, when their sole claim to economic existence is a spread of rates, then the Board will foist upon air transportation a substantial burden which would, of course, have to be passed on to the consumer public.

Now let's examine the comparative cost angle. It is worth doing because the CAB must be ever alert in protecting the air transport industry and the shipping public from any action or activity that will mean higher costs and slower shipments.

We can grant readily that the forwarder relieves the railroad of pickup and delivery, of platform expenses, transfer expenses, loading and unloading, and in addition provides better equipment utilization. This is of considerable benefit to the railroad.

But the forwarder would not and *could not* relieve the airlines of these burdens. First of all, the air carriers have air freight rates from airport to airport. Pickup and delivery charges are filed in a separate tariff. Secondly, air carriers weigh, load and unload *all* shipments, whether large or small, because of weight and balance considerations in loading aircraft. Thirdly, the transfer expense must be handled by the airlines, whereas with the single-gauge railroads the car is either transferred to another line or, if readjustment of particular packages is necessary, the forwarder directly performs the break-bulk function. Fourthly, whatever the forwarder saves on billings (and with railroads this is a considerable item), is offset on the airlines because not all consolidated shipments are lifted in the same plane and, consider-

(Turn to page 10)

# PIONEER FLIGHT PATH CONTROL

The ability to bring in every scheduled flight automatically, accurately, every time—the ability to fly a range automatically, unerringly, all the way—these advantages are bound to mean more exact airline operation. And that is just what Pioneer* offers in its new PB-10 Automatic Pilot with Flight Path Control. Utilizing the established C.A.A. instrument landing system beams, this Control flies the airplane on a smooth, sure flight over a VHF range, or down the glide path for an accurate approach right to the runway. Its action is gentle but precise, as it automatically corrects for drift and maintains the plane on the exact center of the beam. Aside from its obvious savings in scheduled operations, it is also a valuable addition to flight security and passenger comfort.

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# EDITORIAL

*(Continued from page 8)*

ing transfers and tracing, each package must be labeled anyway.

Quite apart from the angle of costs, there is another serious and disturbing angle, and that is speed. With the railroads, the forwarder saves at least five days on shipments from New York to the West Coast over the time the railroad would take to handle ordinary freight. The advantage of consolidated shipments is obvious from the time element alone.

But what about air freight? Here it seems quite likely that the forwarder would *slow up* air freight. The reason is not hard to find. The forwarder makes his living by consolidating as many packages to as many central points as possible. Naturally he will hold packages until the last minute, until he gets as big a consolidation as possible. Some of the forwarder applicants before the CAB have admitted that they would hold air freight as long as 12 hours, and if they admit to 12 hours one wonders how long they would really hold it in practice.

Meanwhile, airplanes are departing with unused cargo space and weight, all because the forwarder is holding freight in order that he may get the largest possible profit. Now whom is he serving? The airlines? Certainly not, because airline costs continue and unused cargo space is costly waste. The shipper? Certainly not, because every hour a shipment is held the shipper loses 200 miles of transit time. Then whom does the forwarder serve? Himself, of course, for a profit. With railroads he saves shippers and the rail carriers and makes money himself. In air freight, he will actually cost the airlines in money, he will cost the shipper in time. Is this a firm economic foundation for a business?

Here's another point. The railroad has but one standard unit of carriage and that's a freight car. That car is only efficient when it's loaded to capacity, and that's where the forwarder fills a useful need. But there are all sorts of airplanes and spaces within airplanes, each providing for variable weight and cubic feet limits. There are nose sections, tail compartments, cabins, Speedpaks, forward belly and rear belly compartments, and forward upper compartments. The capacity varies from 1070 lbs. weight and 70 cubic feet, to 19,600 lbs. weight and 2890 cubic feet. This great variation in freight compartments *in itself* voids in air transportation the greatest single usefulness the forwarder has had in surface transportation.

And again, where the forwarder contributes to greater utilization of railroad equipment, he would contribute to *less* use of airplane equipment. If airlines must concentrate their equipment for evening departures to accommodate the forwarders—who are holding and consolidating freight for profit—then this means that cargo space on morning and afternoon flights goes unused. Those who favor certificating of freight forwarders simply have not considered that air transportation is a system of small flexible units in which frequency of schedule and speed are uppermost features. An airplane is not a long freight train departing after the close of business every day —airplanes are small units on frequent schedules.

And what of the business at small stops? The record shows that the forwarder has gone after the lucrative volume business, leaving the small stuff to the railroads. Would he not do the same in air transportation? Would he not also collect shipments by truck from way stations in order to consolidate them at major points, rather than load the shipments on local airline stops? Of course he would. The airlines would have to handle the dregs, at high unit cost, while the forwarder reaped the benefit of consolidations with subsequent slow handling. Meantime, consider the unused air cargo capacity along the routes and at small and intermediate points.

No, there is virtually no comparison between rail and air freight. It costs the airlines just as much to handle volume freight as it does small units, merely because of the type of operation air transport happens to be. There is no reason why the airlines should not do the job directly, and do it far better, and at lower cost to the consumer. Everything points to an actual higher cost to the public if the forwarder enters the picture because of that fundamental basis of the existence of the forwarder.

When it comes to passengers, the airlines have comfort and service in addition to speed to offer over the railroads. When it comes to freight, the *only* advantage they have is speed. The forwarder will slow up the process and thus offset this sole superiority which the airline has. The airline has cargo and express capacity 24 hours a day—it should be used. Air freight should not hold for consolidation.

There are plenty of claims made by forwarders, such as a superior tracing service, better claims service, and the like, but for the most part these claims are spurious when they are applied to air transport.

Then, too, the forwarder claims that he generates traffic, but this is most doubtful. Generates for whom? All he does is to expedite the shipments by surface transport and it is doubtful if a forwarder ever talked anyone into sending a shipment which the shipper wasn't going to send anyway.

There *is* usefulness for the forwarder in air transport, however, but without his being certificated as an indirect air carrier. If the airlines want to pay commissions to forwarders for throwing business their way, fine. The airlines pay commissions to travel agents for passenger business and can follow the same procedure for freight if they prefer this method to building up their own sales organizations.

As for the non-scheduled cargo lines which recently were given an economic and regulatory standing by the CAB, let them use extreme caution in getting into the same bed with forwarders. What the non-scheduled carriers *really* want are commission agents and if they feel the need of sales assistance, or the substitution of forwarders for their own sales organizations, all well and good. But let them take heed not to become victims of cut-throat tactics, to encourage a system by which one carrier is played off against another, for such is the inevitable result if freight forwarders get a strangle-hold on air transport through a legal standing as indirect air carriers.

Let the CAB ponder well the basic elements and interests of freight forwarders. Air transportation needs no middle man.

WAYNE W. PARRISH.

# PRATT & WHITNEY

*Powers the New Flagships*

New Douglas DC-6's are already operating on American Airlines' schedules. These 300-mile-an-hour, 52-passenger, luxuriously appointed airplanes are the forerunners of a fleet of 50 soon to be flying the Flagship routes—all powered by dependable Pratt & Whitney Double Wasp engines.

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# Stinson Gives Dealers

# "A Solid Foundation For A Profitable Business"

**Leslie H. Bowman, Fort Worth, Texas,** who backs his Stinson operation with 30 years' experience in aviation.

***Meet Leslie Bowman,*** *whose current sales volume is running 200% above his record for '46!*

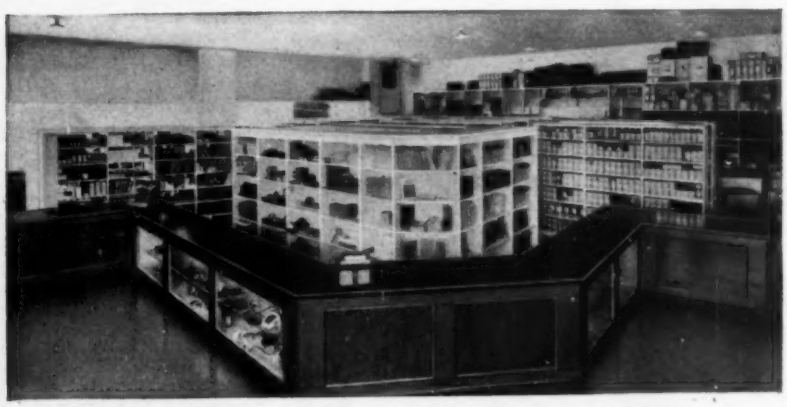
Famed as one of the pioneers of personal aviation, Leslie Bowman looked the field over before he signed with Stinson.

Today he writes: "Thanks to the experienced management, the proved engineering, and the alert sales policies of Stinson, we have a solid foundation for a profitable business. We have real *utility* planes to sell—4-place 'fly-anywhere' planes of quality that attract and hold the kind of owners every airplane dealer wants."

Bowman's widely-known Aircraft Sales Company, Fort Worth, Texas, now represents an investment of $335,000. It employs 60 people. It is currently doubling—and might even *triple* —its high sales volume of '46.

That's long-range *career* business. Profitable business with a real future to it!

Stinson has some additional opportunities waiting for operators who can qualify—and who want action! For complete details, write or wire William H. Klenke, Jr., General Sales Manager, Stinson Division, Consolidated Vultee Aircraft Corporation, Department H, Wayne, Michigan



**Complete facilities** of the Aircraft Sales Company include a retail store, fully stocked with parts, accessories, and general flying equipment.

**$335,000 investment**—and still growing! At Fort Worth's famous Meacham Field, Aircraft Sales Company maintains complete aircraft, engine, radio, and propeller shops. In the foreground are four Stinsons—America's most useful personal planes—easy to fly, easy to buy . . . *easy to sell!*

**Stinson**

***For 21 years, builder of America's most useful personal planes***

# Background and Trends

(Significant Developments and Forecasts Based on the Fortnight's Top News)

**Why It's Tough:** Ten years ago the aircraft manufacturers employed about 35,000 people and had about 7,000,000 square feet of floor area. At the peak of the war, there were 2,102,000 employes and 100,000,000 sq. ft. of factory space. Today employment is about 160,000 and the companies have 44,000,000 sq. ft. of plant to support—and only too little to support it with.

**Moral:** *Before the war the U. S. spent $29,000,000 a year to maintain its aircraft plants. During the war it cost the taxpayers $29,000,000 a day for five years. A lot of this could have been saved by spending more before the war. The lesson holds true today.*

**Erratic:** Transcontinental traffic is at record heights despite series of recent accidents. However, general traffic pattern is erratic: north-south traffic on both coasts has held up, but midwest reports show low load factors on many services.

**CAA Blast:** *CAA is in for a blast from President's board of inquiry on air safety for alleged dereliction of duty in connection with certifying take-off weights for airport runways under varying flight conditions.*

**DC-6 Output:** Douglas has reached production of 2½ DC-6's weekly, and as of late in June had delivered 42 to four airlines: 21 to American, 17 to United, 3 to Pan American-Grace, 1 to National. Braniff will receive first of its DC-6's shortly, as will Sabena, first foreign airline on the delivery schedule.

**No Let-up:** *Trimming of airline overhead costs which began in big way early this year is continuing without let-up.*

**United No. 1:** Zaniest airline gossip to be spread in many months came in a recent syndicated newspaper column which said Eastern and United were going to merge and W. A. Patterson, United's president, would retire because of ill health. Not only is the merger idea not true, but Patterson's health is tip-top.

**United No. 2:** *Somehow or other a rumor got started like wildfire that United Air Lines was going to serve alcoholic beverages on its planes. It is definitely and positively not true. United does serve one complimentary cocktail per passenger on its San Francisco-Honolulu route, but there isn't a chance of extending such a practice—free drinks or otherwise—on the mainland system.*

**Sleeper Uproar:** When Air France burst forth with full page newspaper ads proclaiming that it was the first to offer sleeper service across the Atlantic, it stirred up a rumpus in airline circles. Truth is that Pan American pioneered sleeper service over the Big Pond, to be followed by American Export Airlines, now American Overseas. While BOAC didn't have full berth service during the war, it provided almost equal comforts between Bermuda and Lisbon.

**Disapproval:** *While many in the industry give CAB Chairman credit for stopping Congressional inquiries of accidents by the creation of a Presidential Board, most industry folk frown on Landis, a layman, taking leadership in conducting accident hearings. He grabbed the ball away from technically-competent safety bureau people. Prevailing opinion is that the chairman of CAB should keep himself more aloof and stick closer to economic functions.*

**London Deposes:** On May 15 on this page it was stated that the result of United's low domestic-level fare to Honolulu was to make it cheaper to fly from London to Australia via the U. S. and the Pacific than via India. British Overseas Airways says this isn't so. Fare from London to Sydney via India is $1,046.50 and via the U. S., $1,095.15, plus hotel and other costs via the U. S. routing. We stand corrected. Main point of the May 15 item stands, however The *per mile fare* is lower westward, although the mileage is longer. From London to Sydney via India on landplanes is 11,655 miles at fare of 8.9c per mile. To Sydney via the U. S. is 13,755 miles at a fare of 7.9c per mile.

**Airports:** *Although there are 186 airports in this country which the CAA has approved for use by four-engined aircraft, only 77 of them were being used regularly by such equipment as of the end of June. One reason is that many are on airline routes on which four-engined operations are not economically feasible.*

**Scottish Aviation:** Despite British government's policy of three "chosen instrument" airlines, a privately-owned independent company, Scottish Aviation, is going great guns. It has a fleet of five Convair Liberators and eight C-47's and for a year has operated profitably under charter to Iceland Airways between Iceland and Copenhagen via Prestwick, Scotland. A subsidiary, Scottish Air Express, operates twice monthly between Prestwick and Johannesburg, South Africa. Scottish Aviation operated Prestwick Airport near Glasgow during the war and made thousands of American friends by its excellent service.

**Economy:** *The TWA board was recently told that organizational changes already effected will save $1,000,000 a year.*

**La Guardia Relief:** Present plans of Port of New York Authority call for using Floyd Bennett Field (after lease deal is concluded with Navy) for all non-scheduled, cargo, and executive-type aircraft now landing at La Guardia. In addition, attempts are being made to persuade foreign overseas airlines to use Floyd Bennett until Idlewild is opened. When Idlewild is ready for international operations and can relieve La Guardia of long-haul domestic flights, Floyd Bennett will specialize in cargo and private-industrial operations.

**Specialization:** *A trend of the times is the eye-catching advertisement in this issue of Luttrell and Senior, Inc., one of the more successful air transport management and consulting firms, featuring the "general store" versus the age of specialization. One has to think back to the airlines of 10 years ago, when a few executives knew everything there was to know about an airline, to realize the enormous change in the industry. Specialization is truly here; the "general store" concept is gone for good.*

**Lost Baggage:** ATA is conducting a survey to determine whether central clearing house for lost and unidentified airline baggage should be established on industry-wide basis. Member airlines, which now handle the problem on an interline basis, were asked to submit information on the nature and volume of lost baggage on a day-to-day basis for July. Consideration is being given to possibility of contracting for the service through Railway Clearing House in Chicago.



THE AIRWAY AGE

# Heated boots for climbing ice

ICE on an airplane's cowl rings is a real threat to tail surfaces and controls. The ice builds up until the heat of the engine finally cracks it. Then, instead of slipping harmlessly off, chunks of ice *climb* in the propeller wash and are hurled at high speeds toward the tail. Sometimes these ice chunks seriously damage the tail and expensive maintenance is necessary.

To solve this problem, B. F. Goodrich has developed cowl boots of electricaliy heated rubber. They keep the cowls clean of ice and eliminate the penalty of increased drag and the hazard of flying ice.

Made of thin, tough rubber, the boot has wires imbedded in its core which distribute the heat uniformly over its entire surface: Tests, like the one shown above, check the carefully planned heat distribution. The heated rubber boot is very flexible, fitting tightly and smoothly to the cowl. It also can be internally installed where design permits.

Used to protect propellers, spinner domes, air intakes and other protrusions, as well as hydraulic lines, water tanks and similar installations, B. F. Goodrich heated rubber is the most efficient way of getting the right amount of heat to a specific spot. It can be adapted to any power supply. Research to make heated rubber even better is a constant project of B. F. Goodrich engineers. *The B. F. Goodrich Company, Aeronautical Division, Akron, Ohio.*

**B.F.Goodrich**

**FIRST IN RUBBER**

Established June 1, 1937

American Aviation

Volume 11 Number 4

# Airline Earnings Show Upward Turn

## Monthly Financial Reports Reflect Seasonal Traffic Gains; Steady Advances Expected in Months Ahead

By Clinton R. Harrower

In marked contrast to the beginning of the year, a note of cautious optimism is permissible as the domestic airlines swing into the second half of 1947.

At that time, the general financial position of the airlines was deteriorating so rapidly that in some instances operations were a grim fight for survival.

The coming of spring, however, proved that seasonal influences, long obscured by the urgency of wartime needs, were still operative. A great traffic upsurge started in March, right on schedule on the basis of past experience.

The monthly financial reports were quick in turn to reflect the change in traffic. Today, the bankruptcy-threatening deficits, which featured the monthly financial reports in January and February, are now part of the nightmarish past. Monthly reports are beginning to show small profits. Where losses still persist, they have been whittled down to manageable proportions.

### Striking Gains Ahead

The prompt manner in which traffic returns and financial reports reacted to the normal seasonal influences thus gives some hope that the approach of the August-September-October period, normally the greatest earning period of the year, means that striking gains may be made in the months just ahead.

Whether or not that anticipated improvement will be great enough to put the airline industry as a whole in the black for 1947 is another question.

Normal seasonal factors already have demonstrated their great influence on traffic returns. Table No. 1 demonstrates how great has been the resulting leverage on the financial returns of those airlines whose stocks are listed on the New York Stock Exchange. Nevertheless, the financial community is sharply conscious that the domestic airline industry by the end of April had accumulated a collective net operating deficit of almost $18,500,000 which must be overcome in the next few months if the year is to end in the black.

This means that many problems remain to be worked out. Nevertheless, concensus in Wall Street at the moment is that the airline industry may now have passed through the worst phase of its post war conversion problems. A number of factors, however, will tend to defer the realization of substantial earnings for some time to come, it is believed.

For one thing, integration of new equipment is proving to be more costly than previously estimated. This would indicate that when the present DC-6 and Constellation phase is ended such costs will continue as the Convair 240, the Martin 2-0-2 and the Boeing Stratocruiser make their appearance. The new equipment indoctrination phase thus promises to be a drag on earnings to a considerable degree through 1948. After that, the industry as a whole can expect to cash in pretty well on the new types.

Eastern Air Lines' new Constellations are a case in point. Following conservative financial policies, the company—which has been the one big money maker throughout the entire difficult period—set aside from 1946 earnings a $1,000,000 reserve for the integration of new equipment in 1947. When the action was announced officials of the company felt that it was more than sufficient. There are now well defined reports that the reserve may prove inadequate.

Competition too is reasserting itself. Following the awards of 1944, 1945 and 1946, virtually all routes are now flown competitively. This rules out casual service. For example, lines can no longer serve communities with one 3 a. m. schedule but must give patrons convenient hours. Otherwise competition will do so. This adds to operating costs.

New routes are shifting traffic. An outstanding example is the New York-San Juan run by Pan American. Formerly Eastern and National competed for the Latin American traffic brought to and from Miami by Pan American. Now, however, the latter by-passes Miami with its own service via San Juan between New York and the east coast of South America as far down as Buenos Aires. In a similar way, direct flights between the Chicago gateway and Europe would affect the New York-domestic runs.

Growing competition means that the acquisition cost of passenger traffic—advertising and sales—inevitably must rise.

These are typical examples of the cost items which are being cited in Wall Street as being peculiar to the airline industry. They are in addition to other rising costs, such as labor and materials, which affect all lines of business in a period of rising prices. They thus place a special burden upon airline management.

From the investor standpoint,

### Table 1—Net Operating Losses Cut (000 Omitted)

| | Jan. | Feb. | March | April | May | Total |
|---|---|---|---|---|---|---|
| American | $1,722 | $1,844 | $1,119 | * $75 | na | $4,610 |
| Braniff | 223 | 239 | 121 | 51 | * $27 | 607 |
| Eastern | * 162 | * 391 | *1,112 | *1,307 | na | * 2,972 |
| National | 17 | * 118 | *247 | * 112 | 28 | * 432 |
| Northwest | 742 | 909 | 247 | 325 | na | 2,223 |
| PCA | 1,018 | 991 | 207 | * 48 | * 90 | 2 078 |
| TWA | 1,473 | 1,719 | 246 | 384 | na | 3,822 |
| United | 1,885 | 2,252 | 995 | 314 | na | 5,445 |
| Western | 320 | 383 | * 34 | * 32 | na | 637 |

* Net operating profit.
na—not available.

### Table 2—Stock Prices Reflect Cautious Optimism

| | 1947 High | 1947 Low | Recent | % Recent to 1947 High |
|---|---|---|---|---|
| American | 11⅜ | 8⅛ | 9 | 79% |
| Braniff | 13½ | 8⅜ | 9 | 66 |
| Eastern | 24¼ | 17¼ | 19½ | 80 |
| National | 16½ | 11⅜ | 12¼ | 74 |
| Northwest | 22¼ | 12¼ | 13¼ | 59 |
| PCA | 15½ | 6¼ | 7 | 45 |
| TWA | 22⅞ | 10½ | 12 | 52 |
| United | 28½ | 21 | 21¾ | 76 |
| Western | 10⅛ | 5¾ | 6⅛ | 60 |
| Dow Jones Industrials | 184.49 | 163.21 | 181.73 | 98 |

financial quarters place particular emphasis upon the great amount of long term debt being assumed by various airlines. Growing debt service charges indicate that common share earnings may react less rapidly to traffic gains than in the past.

Of special interest in this connection has been the granting by banking groups of revolving credits to individual airlines. Outstanding have been the $28,000,000 credit obtained by United, $20,000,000 by Eastern, $12,000,000 by American Overseas, $10,000,000 by Braniff and $1,700,000 by Continental.

As a financing method for short term needs, the bank credit offers many advantages. Willingness of banking groups to open such lines testifies to the confidence of the financial community in the industry.

From the investor viewpoint, however, such credits introduce a note of uncertainty. When the credit line matures and the outstanding debt is converted into a time note, the face amount of the note can range from nothing to potentially the full amount of the credit line. What this means to the common stock holder is obvious. United's credit, for example, means that during the five years beginning June 30, 1948, a repayment charge ranging from nothing to a potential of approximately $3 per common share annually will come ahead of common stock earnings. This compares with United's earnings of 54 cents a common share in 1946, $2.34 in 1945 and $3.76 in the record breaking year of 1944.

Airline stock prices on the New York Stock Exchange have been faithfully reflecting the overall picture. On the one hand, the generally more hopeful attitude has lifted quotations from the previous lows for the year as shown in Table No. 2. On the other hand, recognition that problems are still ahead is clearly a market factor. Recovery in airline stocks has carried them up until recent quotations were 45% to 80% of the year's high. The market as a whole, however, as measured by the Dow Jones industrial averages reached 98% of its former high mark for the year.

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## UAL Asks More Mail Pay

United Air Lines has petitioned CAB for "a substantial increase" in its mail rate, claiming that the current 45c per ton mile is "less than fair and reasonable compensation." The petition states that the exact amount of increase needed has not been determined, and asks that the increase be retroactive to Jan. 1, 1947. UAL pointed out that the 45c rate produced the approximate result CAB intended during 1945, but that since then, with lower loads and higher costs, the rate does not yield just compensation.

# TWA, Capital Centralize Systems in Economy Move

*By* ERIC BRAMLEY

Two airlines late last month revealed the virtual abandonment of their decentralized organizational set-ups. In both cases, the changes were dictated by management's efforts to cut expenses.

The most sweeping reorganization was that of TWA, which to a great extent abandoned its regional set-up and again became a "straight-line" organization.

Capital Airlines, which recently eliminated its district general managership, went a step further and discarded its regional vice presidencies, shifting these officials into system positions. As a result, Robert M. Averill, vice president-western division based in Chicago, becomes assistant to J. H. Carmichael, executive vice president. Richard E. Fell, eastern vice president based in New York, becomes sales manager for that area. The new position of J. D. Henry, southern vice president based in Washington, had not been finally decided, but he remains with the company.

TWA, which has had four regions (eastern, central, midwest and western) each headed by a general manager, cut its organization to three regions (eastern, central and western) and eliminated the job of general manager. Officials holding these positions were transferred to other jobs.

Title of TWA's transportation unit was changed to operations department, headed by John Collings as vice president-operations. Collings formerly was v. p.-transportation.

A new position, that of general sales manager, was created and is filled by C. S. Fullerton, formerly general traffic manager. New general traffic manager is John H. Clemson, formerly general manager of the midwest region.

Each region, instead of being headed by a general manager, now has a general sales manager and an operations manager, who report respectively to the vice president-traffic and the vice president-operations. In the eastern region, W. F. McGrath, former general manager, is general sales manager, and W. H. Smiley, former manager of operations, is operations manager. In the central region, former general manager C. E. McCollum is general sales manager, and C. V. Abbott, former manager of operations in the midwest region, is operations manager. Western region general sales manager is R. E. Montgomery, former sales manager of the region, and former general manager J. S. Bartles becomes operations manager.

In the various cities on the TWA system, district managers will deal only with traffic, while the station managers will handle operations. District traffic managers are eliminated. Formerly, station managers and district traffic managers reported to the district manager, who in turn reported to the regional general manager.

Substantial economies are expected from the TWA move. Some jobs are eliminated in the regions. In other cases, shifts are being made. Most of the former district traffic managers, for example, are being assigned to sales duties.

TWA's international division was also undergoing considerable change, although no official announcement had been made. Hal Blackburn, who had been assistant general manager of the division, and Roger Kruse, superintendent of flight operations, have gone back to fly the line as pilots. Blackburn is said to have gone back to flying of his own volition, and the change is not connected with reorganization.

There were also continued reports last week that other airlines were trimming expenses and in some cases cutting personnel.

American Airlines has Amos Culbert, vice president-properties, on special assignment studying the advantages and disadvantages of decentralized control.

### Frank Talk

CAB Chairman James M. Landis talked recently before the board of the National Aviation Trades Association about cargo and irregular carriers.

"In some respects 292.1 is as unintelligible to me as it is to you," he said about the new regulation for irregular carriers. "The lawyers got into it too soon.

"I haven't heard many complaints about 292.1 except that no one can understand it."

He said CAB had refrained from regulating non-scheduled and charter operators right after the war because "bankruptcy is better than bureaucrats. People get sore at bureaucrats," and it was obvious the non-scheduled operators would go out of business anyway.

As for the future of air cargo—independent certificates for all-cargo operators or turn cargo over to scheduled airlines exclusively he said: "Our philosophy is to let economic pressures decide the issue of cargo, and keep the field fluid in the meantime. In the long run we will get wiser answers from economic pressures than to let the false pressures of bureaucrats prevail."

## Aviation Calendar

**July 16**—Aircraft Manufacturers Council, Hollywood Roosevelt Hotel, Los Angeles, 3 p. m.

**July 16**—CAA-sponsored state aviation forum, Columbus, S. C.

**Aug. 1-2**—Reunion of Parks College graduates, 20th anniversary of founding, East St. Louis.

**Aug. 7-8**—Institute of the Aeronautical Sciences annual summer meeting, Los Angeles.

**Aug. 7-8**—National Flying Farmers Association 1947 convention, Oklahoma, A. & M. College, Stillwater.

**Aug. 13**—CAA-sponsored state aviation forum, Nashville, Tenn.

**Aug. 21-22**—SAE West Coast Transportation & Maintenance Meeting, Biltmore Hotel, Los Angeles.

**Sept. 8-12**—Instrument Society of America, second annual conference and exhibit, Hotel Stevens, Chicago.

**Sept. 15-17**—Air Force Association first annual convention, Columbus, Ohio.

**Sept. 16-18**—Second Regional CAA Conference, Atlanta, Ga.

**Oct. 2-4**—SAE Autumn Aeronautics Meeting, Biltmore Hotel, Los Angeles.

**Oct. 3-4**—Arizona State Aviation Conference, Douglas, with Arizona Airmen's Association.

**Oct. 24-26**—"Air Day in Texas," state sponsored aviation show, Harlingen, Tex.

**Oct. 26-28**—National Association of State Aviation Officials, Ft. Worth, Tex.

**Nov. 4-7**—National Airport Show and Institute, Municipal Auditorium, Cleveland. Sponsored by Air Foundation and National Aeronautics Association.

**Nov. 6-7**—SAE Fuels & Lubricants Meeting, Hotel Mayo, Tulsa, Okla.

**Nov. 19-22**—Fifth Annual National Aviation Clinic, Springfield, Ill.

**Dec. 1-3**—SAE Air Transport Meeting, Hotel Continental, Kansas City, Mo.

### International

**July 15**—ICAO South Atlantic Regional Air Navigation Meeting, Rio de Janiero, Brazil.

**Aug. 19**—ICAO Airdromes, Airways and Ground Aids Division, Montreal.

**Sept. 6**—Institute of the Aeronautical Sciences and Royal Aeronautical Society, joint conference, London, England.

**Sept. 16**—ICAO Radio and Communications Division, Montreal.

**Oct. 8**—ICAO Meteorological Division, Montreal.

**Oct. 15-18**—2nd Annual Air Conference, Montreal Board of Trade, Montreal.

**Oct. 20**—Annual Meeting, Air Industries and Transport Association of Canada, Gray Rocks Inn, St. Jovite, Quebec.

## Four New Delta Directors

Four new directors have been elected to the board of Delta Air Lines, raising the total number to 12. The new directors are: R. W. Freeman, New Orleans, president and director of the Louisiana Coca-Cola Bottling Co.; Edward H. Gerry, New York real estate man; Winship Nunnally, Atlanta, a director of Coca-Cola Co., Columbus Transportation Co., and the Trust Company of Georgia; and Richard J. Reynolds, son of the founder of the R. J. Reynolds Tobacco Co.

**Scapegoat for Indiscretions?**

# Fair Trial for Feederlines Urged by Dissenting Reader

*(Editor's Note: The following represents excerpts of a letter from A. L. Wheeler of the Washington law firm of Roberts & McInnis, and is published here because of the great interest in the current feederline experiment.)*

In the May 15, 1947 edition of AMERICAN AVIATION there was published an editorial entitled "Colonel Young Dissents." This article expresses agreement with Col. Young's feeder philosophy as set forth in his dissents in the Southeastern States Case, the Texas-Oklahoma Case, and others.

My interest in this editorial emanates not from my position as counsel for several of the feeder carriers, but from an interest in fair comment and fair play. The editorial, asserting Col. Young's position in the Southeastern States Case, is unfair, inaccurate and misleading. It misrepresents the conclusions and reasons spelled out in detail in his dissent.

The editorial failed to state Col. Young's position in the Southeastern States Case regarding feeders to be: (1) sufficient number of independent feeders have been certificated for a successful experiment, (2) if any further local experimenting is needed, it should be undertaken by trunk line carriers operating feeder routes and, (3) that the southeastern area constitutes an extraordinarily favorable area for undertaking the latter type of experiment.

The heart of the editorial is focused on the probable high cost of feeder operations and the concomitant drain on the public coffers. A review of the history of the smaller trunk lines would reveal that government expenditure for their development has far exceeded that proposed for feederlines.

Tracing government expenditures for the five so-called "need" carriers to 1938, I find that the cost per airplane mile in 1938 was approximately 35c per airplane mile, the same amount now being awarded to feeders in their temporary mail compensation. The compensation for one of the need carriers, Colonial, was 60c per airplane mile, which is considerably in excess of that proposed for the feeders.

An inspection of the table below discloses a significant decrease in mail compensation per airplane mile paid to Colonial, Northeast and Continental from 1938 to 1946, an incident of maturity. A similar decrease in mail compensation can be expected from a matured feeder system. It is obvious, therefore, that feeder carriers in their first year of operation, are no more expense to the government than the existing need carriers.

If I were prone to speculate, I would assert that 15 years or more of maturity and development would reduce the cost of feeder operation far in excess of the requirements of the existing need trunk line carriers.

While I agree with Col. Young that the financial burden now existing on the Federal Government as the result of air operations merits consideration, our remedies strike discordants. Obviously feeder carriers are not responsible for the existing financial condition because very few are in operation. If the public treasury is burdened, it is because of, among other things, the will of Congress, in the passage of the new Five-Cent Air-Mail Act, over-ambitious desires of existing carriers in expansion, plus certain inefficiencies in existing carriers' management and operation. To pin the responsibility on the feeder experiment is to make the experiment a scapegoat for Congressional and existing carriers' indiscretions. I submit that the remedy lies not in the suppression of further feeder developments, but in the correction and modification of conditions now existing.

The Board has determined that it is their responsibility in furthering the policies imposed by Section 2 of the Act to extend air transportation to the smaller communities. Given this purpose, it logically follows that this type of transportation should be given a fair opportunity to develop.

| Carrier | 1938-Base Rate of Compensation per Airplane mile | 1946-Base Rate of Compensation per Airplane mile | 1946 Compensation |
|---|---|---|---|
| Colonial | 60.00c | 20.00c | $533,086.25 |
| Continental | 33.33c | 24.80c | 609,329.31 |
| Inland | 33.33c | 39.68c | 593,529.23 |
| Mid-Continent | 38.00c | 41.83c | 945,366.78 |
| Northeast | 33.33c | 25.00c (Temp.) | 923,535.50 |

**Story Behind an 'Invasion':**

# Here's How NWA Opened Way for Orient Service

*By* KEITH SAUNDERS

Even a peaceful and beneficent "invasion" of the islands of the Pacific and the Far East, such as that being consummated July 15 with inauguration of Northwest Airlines' international service to Tokyo, Shanghai and Manila, requires long months of detailed planning and staggering problems of logistics.

A behind-the-scenes story of the vast amount of work and planning which took place between CAB's certification of the service last August 1 and D-Day—the initial scheduled flight—has been furnished AMERICAN AVIATION by key Northwest officials.

Although the complicated task of setting up a new service to foreign lands many thousands of miles distant is something that Pan American, American Overseas, TWA and other carriers have done previously, it still was an untried experience—and consequently a matter of pioneering and trail-blazing—to Northwest Airlines.

In the field of logistics alone, preparations for opening of the new route to the Orient entailed the setting up of maintenance bases, stocking of parts and equipment at various bases and en route points, acquisition and furnishing of staff houses, erection of electric light plants, and the readying of traffic and headquarter offices.

In this connection, nearly 1,000 tons of materiel moved to the Far East on air, rail and water journeys of up to 8,000 miles. In revealing details of this huge task, the office of W. Fiske Marshall, Northwest's vice president-operations, listed some of the heavier articles taken to destinations halfway around the world. These included: 10 Diesel generators, 200,000 pounds of aircraft parts and supplies, several electric light plants, three 42-passenger busses and a large fleet of passenger cars and trucks.

### Scope of Task

Purchasing all the needed equipment and supplies was quite a job in itself; then there was the matter of getting it to Alaska, Japan, Korea, China and the Philippine Republic, and finally there was the technicality of clearing customs. Many of the equipment items were scarce, distances were great, and things had to be accomplished in a hurry.

Northwest turned over specific assignments to key officials. H. S. Eckes, purchasing agent of the airline's Orient Region, was entrusted with the buying; E. J. McKeller, system plant superintendent, with getting it moving; S. F. Stewart, export agent—Orient Region, with customs and similar arrangements; and Fred W. Sallet, superintendent of stores—Orient Region, with coordinating the assembling and transporting of the stocks.

Many items were bought from war surplus supplies on Leyte and sent on to Manila, Tokyo, Seoul and Shanghai by air and by boat. Purchases in the U. S. included things like ramp equipment, passenger steps, battery energizers, baggage carts, aircraft tools and shop equipment. They also included automotive equipment such as passenger cars, trucks, jeeps and station wagons, plus three 42-passenger busses, one for Manila and two for Tokyo.

Coming in for special attention were "protective stocks" of such things as starters, generators, magnetos, tires, wheels and instruments, which might be urgently needed in maintenance of planes and could not be obtained readily in the Orient. Sizeable stocks of these items were placed in Tokyo and Manila, and smaller assortments in Seoul and Korea.

In addition, staff houses had to be supplied with beds, linens, kitchen utensils, chinaware and cutlery, and tickets, stationery and other items had to be provided.

On the long overseas flights, shipments were flown in DC-4's, while on shorter hauls in the Orient the larger ships were aided by two DC-3's which had been flown across for use on local service there.

Since Northwest will service itself completely at all points and will not rely on the Army anywhere along the

## Key Men in NWA Orient Region

King — Fauteux — Nelson — Ebert

Key men among the 242 persons in Northwest's Orient Region are the following 18:

**D. J. King,** regional vice president.
**J. J. Fauteux,** assistant to regional vice president.
**R. E. Nelson,** director of flying.
**Robert A. Ebert,** manager of personnel.
**A. D. Piepgras,** comptroller.
**R. J. Morgan,** manager, Japan.
**Lewis E. Langdon,** manager, China.
**J. P. Farrell,** district traffic manager, Shanghai.
**William E. Musgrave,** manager, Philippine Islands.
**B. J. Talbot,** district traffic manager, Manila.
**W. L. Hollingsworth,** superintendent of stations.
**Paul L. Benscoter,** station manager, Shanghai.
**Loren L. Brown,** station manager, Toyko.
**M. J. Costello,** chief flight superintendent.
**F. W. Sallet,** superintendent of stores.
**Sidney Schulz,** superintendent, Orient communications.
**Chester Brown,** superintendent, line maintenance and service.
**Clayton Schule,** plant engineer.

Piepgras — Morgan — Langdon — Farrell

route, it was necessary to set up a major maintenance base at Tokyo and a minor maintenance base at Manila, with a full work force at each. Other points, as mentioned above, were provided with stockpiles of maintenance parts and equipment.

### Advance Experience

The traffic department on a route such as this has its own full complement of problems, but Northwest prepared itself in this respect by inaugurating charter flights and special non-charter flights over its Great Circle route to the Orient last February. This gave traffic men practical experience in soliciting passengers and cargo, in preparing personnel for the new operation, and in determining, well in advance of the start of scheduled service, the specific needs of travelers and shippers.

"Months before the beginning of scheduled service, we had established experienced personnel in Far Eastern cities, opened traffic offices in Tokyo, Seoul, Shanghai and Manila, and undertaken studies and experiments to acquaint ourselves with every phase of the traffic operation," R. O. Bullwinkel, vice president-traffic, pointed out. To meet the "primary problem of adjustment to a foreign philosophy," Bullwinkel said, men with broad foreign service were assigned to positions in the Orient—such men as James J. Fauteux, veteran of Northwest's domestic traffic organization and for many years associated with a foreign travel agency, and Robert J. Morgan, a former lieutenant colonel with extensive experience with the Army in Japan after the war.

Meanwhile, the company had undertaken a comprehensive training program for traffic personnel in the U. S. to acquaint them with Oriental customs, traditions, history, business relationships, government background, economic conditions and the requirements of those countries in their programs of rehabilitation. These trainees have now taken up their duties in the Orient.

### Personnel Setup

This training of traffic employes was only one phase of the personnel program, however, for the Orient Region required an initial complement of approximately 250 persons. The personnel setup at the various stations is as follows: :

**Tokyo:** Total of 66 persons including regional vice president, assistant to the regional vice president, manager, station manager, office manager, supervisor of Orient communications, supervisor of ground communications facilities, 4 flight superintendents, 1 chief meteorologist, 1 regional director of flying.

And 6 pilots, 6 co-pilots, 4 navigators, 4 pursers, 1 superintendent of stations, 1 assistant station manager, 2 transportation agents, 4 flight radio officers, 11 radio operators, 4 flight mechanics, 1 superintendent of line maintenance and service, 1 chief mechanic, 2 mechanics, 1 crew chief, 1 radio mechanic, 1 staff house manager, 1 stock clerk, 1 plant engineer, 1 head inspector.

**Twin Cities:** Total of 125 employes including 4 secretaries, personnel manager, personnel assistant, employe records clerk, export agent, comptroller, assistant to comptroller, supervisor of payroll records, supervisor of accounts payable and receivable, clerk, expense auditor, revenue auditor, revenue clerk, supervisor of training.

Also purchasing agent, clerk-stenographer, 1 check pilot, 23 pilots, 23 co-pilots, supervisor of navigators, 11 navigators, supervisor of flight pursers, 11 pursers, supervisor of flight radio officers, 12 flight radio officers, supervisor of flight mechanics, 6 flight mechanics, 12 stewardesses, superintendent of stores, supervisor of property records, supervisor of line station stores.

**Shanghai:** Manager, district traffic manager, 2 flight superintendents, station manager, assistant station manager.

**Manila:** Manager, district traffic manager, 2 flight superintendents, 1 chief mechanic, 2 mechanics, 1 radio mechanic, staff house manager, stewardess instructor.

**Shemya:** Staff house manager, plant and equipment engineer, engineer, 4 flight superintendents, station manager, 4 radio operators, plant maintenance man, 2 cooks, dining room supervisor, 3 waiters, dishwasher, launderer, and 2 stewardesses.

**Adak:** Station manager, 3 radio operators.

**Anchorage:** Chief flight superintendent, 5 radio operators.

**Seoul:** Office manager, station manager.

**Seattle:** 1 stock clerk in charge.

### Natives Employed

In addition to the 242 employes listed, Northwest has 10 native Filipino and Chinese girls in stewardess training in Manila and a group of Filipino natives employed in lesser jobs. It is planned to employ nationals in traffic and other positions eventually.

Another problem met in setting up the new Orient service was the matter of arranging to serve tasty, fresh meals for passengers. Harold W. Houston, director of food service for Northwest, felt passengers would want American food, and he found it lacking in sufficient quantities in many sections of the Far East which he visited last spring. So it was decided to use pre-cooked frozen meals, and Northwest placed with the Maxson food kitchens in New York an initial order for 25,000 meals: roast beef and gravy, country style chicken, swiss steak, tenderloins, roast veal, veal paprika, roast lamb and turkey, with all the usual trimmings.

Frozen in specially treated disposable plates, the meals are packed in a moisture-proof covering, placed in cartons and sent under refrigeration to frozen food depots to be stored in specially constructed refrigerator boxes. Eleven thousand of the meals are being stored in Tokyo, 3,000 at Manila, and about 11,000 divided between Anchorage and the Twin Cities. Houston estimates they will last about three months.

Of course, the job is not over yet. A constant flow of supplies and equipment must be maintained as long as Northwest continues to fly planes on its route to the Orient. But officials of the airline feel the toughest part of the job—the trail-blazing part—is over.

## CAB Calendar

**July 15**—Hearing on Northeast Airlines' Mail Rate Case. (Dockets 1932 and 1890). 10 a. m., e.d.s.t., Conference Room "A," Departmental Auditorium. Examiner Edward T. Stodola. Postponed from June 30.

**July 16**—Oral argument on motion of Public Counsel to dismiss request of Transcontinental & Western Air retroactive mail pay. (Docket 2849).

**July 16**—Prehearing conference on applications of Resort Airlines, Inc., for authority to conduct "all expense" air tours. (Dockets 2377 and 2571), 10 a. m., e.d.s.t., Room 1302, Temporary Building "T." Examiner James S. Keith.

**July 21**—Hearing on All American Aviation Route 49 Mail Rate Case. (Docket 1905). Examiner Ralph L. Wiser. 10 a. m., e.d.s.t., Room 1302, Temporary Building "T."

**July 28**—Hearing on applications proposing helicopter mail service in the Chicago area. (Docket 2384 et al.). Examiner Ferdinand D. Moran.

**Aug. 25**—Hearing on applications proposing additional California-Nevada service. (Docket 2019 et al.). Examiner Curtis C. Henderson.

**Sept. 2**—Hearing on applications of Braniff Airways and Pan American-Grace Airways for amendment of their Latin American Certificates. (Dockets 2527 and 2622). Tentative.

**Sept. 8**—Hearing on Mid-Continent Airlines proposed Minot-Regina extension. (Docket 628). Tentative.

**Sept. 29**—Hearing on Mid-Continent Airlines Route 26 Amendment Case. (Docket 628). Tentative.

**Oct. 7**—Hearing on applications proposing additional service to Florida (Docket 1668 et al.). Postponed from Aug. 12. Examiner F. Merritt Ruhlen. Tentative.

**Nov. 15**—Hearing on the board's Investigation of the Consolidated Air Freight Tariff. (Docket 2719). Examiner Herbert K. Bryan.

## CAB Actions

**June 24**—Board order amending temporary mail rate paid to Pennsylvania-Central Airlines to offset changes in the rate's yield caused by reductions in mail schedules designated by the Postmaster General.

**June 26**—Board order adjusting temporary mail rate paid to Colonial Airlines to offset reductions by the Postmaster General in the number of Colonial's schedules designated for mail service. (Docket 2724).

**June 26**—Exemption order allowing Pan American Airways to continue service to Camaguey, Cuba, until CAB passes upon a PAA application to substitute Camaguey for Cienfuegos on its Miami-Kingston-Balboa route. (Dockets 2977 and 2978).

**June 27**—CAB opens investigation of free and reduced-rate tariffs filed by U. S. flag and foreign airlines. (Docket 3009).

**July 3**—Order limiting issues in the TWA-Hughes Tool Co. Control Case (Docket 2796) to the single question of CAB's jurisdiction.

**July 3**—Show cause order suggesting higher temporary mail rates for the trans-Pacific operations of Northwest Airlines. (Docket 2539).

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### Ehrman Becomes CAL Director

Frederick L. Ehrman, partner in the banking firm of Lehman Bros., New York, has been elected to the board of directors of Continental Air Lines.

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### Named to L. A. Airways Board

Emerson B. Morgan, of Morgan & Co., Los Angeles securities firm, has been elected a director of Los Angeles Airways, succeeding James T. King.

* * * *

# IATA Decides to Hold Atlantic Fares at 9½c

By Frank M. Holz

Trans-Atlantic passenger fares should be held at the present level of about 9½ cents per mile until Feb. 28, 1948, according to the unanimous decision of the 12 airline members of the North Atlantic Traffic Conference of the International Air Transport Association (IATA). The Conference recently held a one-week meeting in New York under the chairmanship of Vernon G. Crudge, manager of the Atlantic Division of British Overseas Airways Corp. The group also adopted recommendations for sea-air cooperation and for a single cargo tariff.

Rates are now based on a one-way fare of $325 between New York and London, set about one year ago. The airlines found that operating costs, which determine rate recommendations, are still too variable and unstable to permit rate recommendations on anything but a short-term basis.

The Conference will hold a special meeting Nov. 17 to discuss rates for the 1948 season. By November the Conference cost analysis subcommittee will be able to submit its first cost study of a full year of operation. The study, plus other information (such as availability of new equipment), will provide a more extensive basis to forecast costs and fares.

### 6,000 Weekly

The November special meeting will also consider establishing summer and winter rates, a long established practice among European airlines. This may be a method to equalize year-round load factors, Crudge stated. He reported that trans-Atlantic airlines have gained ground since the winter slump and are now carrying an average of 6000 passengers weekly across the Atlantic, providing an all-time high of 23 scheduled services daily.

A special subcommittee was appointed to discuss with the North Atlantic Shipping Conference restoration of prewar arrangements for interchange of sea and air traffic. Under such arrangements a traveler could, on a single ticket, make one leg of an overseas trip by air and another leg by sea. Passengers could fly to destination, with heavy baggage following by steamer.

Conference officials denied that these sea-air coordination plans had any connection with efforts by U. S. steamship firms to obtain permission to engage in scheduled air transportation. Crudge pointed out that similar arrangements were fairly common before the war, particularly on Far East services of British, Dutch and French airlines.

To encourage tourist travel, the Conference recommended an allowance of an extra 2½ percent commission to travel agents arranging special all-inclusive tours using airline services. The agents must, however, follow certain Conference rules and standards of service.

The Conference also voted to simplify its cargo tariff structure by replacing the separate classifications of "air freight" and "air express" with the single overall classification "air cargo". To encourage volume use of air cargo services, the airlines agreed to file a 25% discount on shipments over 100 lbs. The Conference also set up machinery to establish special commodity rates (flowers, foodstuffs, newspapers, garments, etc.)

All Conference resolutions must be approved by the interested governments before they become effective. Two new airlines were admitted—the Belgian carrier SABENA and British South American Airways — bringing total membership to 12.

## Siamese Pacific Airline Denied Landing Rights

Pacific Overseas Airlines Siam, recently organized for international services carrying the Siamese flag, has been forced to bypass Shanghai and Manila on Bangkok-Los Angeles flights because of landing rights disagreements. The Chinese Ministry of Communications prohibited POAS from landing at Shanghai. Siam retaliated by cancelling landing rights at Bangkok for the recently-inaugurated Shanghai-Bangkok service of the Chinese airline Central Air Transport Corp.

Later the Philippine Government denied the Siamese company landing rights at Manila. Siam then cancelled informal rights granted to the Philippines under which at least four Philippine companies had been operating to Siam since the end of the war.

A statement attributed to the government-controlled Chinese news agency said it was "doubtful" that POAS would receive Shanghai landing privileges because it "competes with CNAC's American service". CNAC (China National Aviation Corp.) recently applied for a foreign air carrier permit for trans-Pacific services to the U. S.

In answer to inquiries a POAS official stated that difficulties are due chiefly to the fact that Siam has no bilateral air agreements with China and the Philippines and that this may be remedied in the near future. A high Philippine official is reported to have gone to Bangkok to negotiate such an agreement.

**BOAC Cites History:**

## Round-the-World Service Nothing New

A scheduled round-the-world air service is not as new a thing as it might seem to readers of some of the publicity accorded Pan American Airways' recent inauguration of such a service, according to British Overseas Airways Corporation representatives in this country.

While conceding that Pan Am's is the fastest and cheapest round-the-world service yet offered, the BOAC people point out that a scheduled air service all the way around the world via BOAC and two connecting Empire carriers—Trans-Canada Air Lines and British Commonwealth Pacific Airways—has been in operation nearly a year now, and for this reason they say PAA's new service does not properly rate credit as a "first."

In support of this contention, they cited service inaugurated by BOAC and connecting lines last September. This service actually originated and terminated in London, but for this publication's purposes it is perhaps better to begin and end at Montreal.

Leaving Montreal on, let us say, a Wednesday afternoon, the traveler proceeded to Vancouver, B. C., via Trans-Canada, arriving there early next morning. Leaving Vancouver in the afternoon, he went on to San Francisco in a Douglas DC-4. After a two-hour layover in San Francisco, the plane took off again that night for Honolulu, where it arrived at breakfast time next morning.

The traveler then had a full 12 hours in Honolulu, after which the DC-4 took off for Canton Island, which was reached next morning. Next stop was Fiji, and a day was lost in crossing the International Date Line. There was a 12-hour layover at Fiji, with departure at midnight and arrival next morning at Sydney, Australia.

After a few hours in Sydney, the traveler boarded a BOAC Lancastrian, which took him on to London, via Darwin, Singapore, Calcutta, Karachi, Lydda and Malta, arriving London on the evening of the ninth day. Fastest leg of this globe-circling

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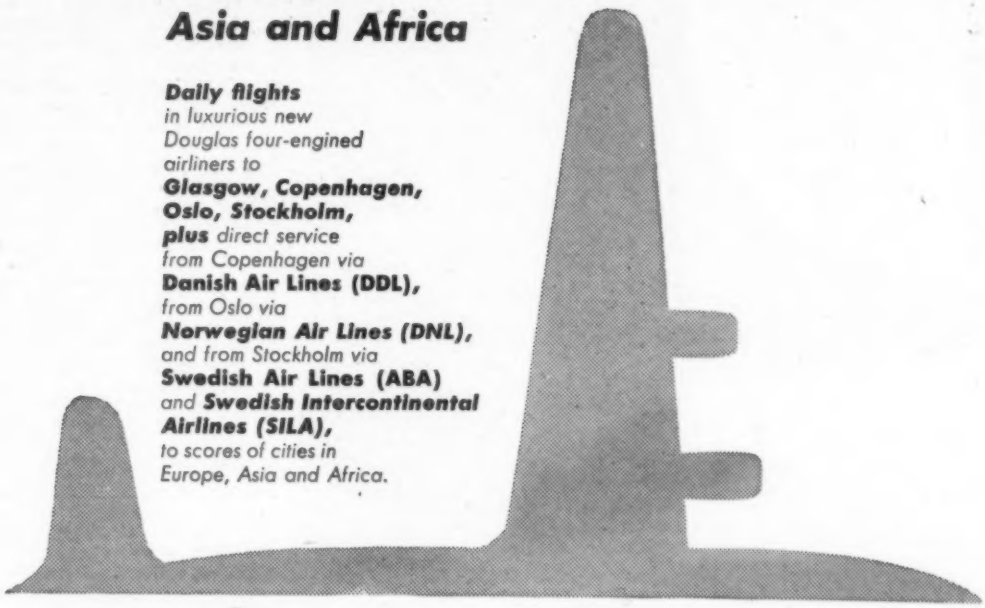

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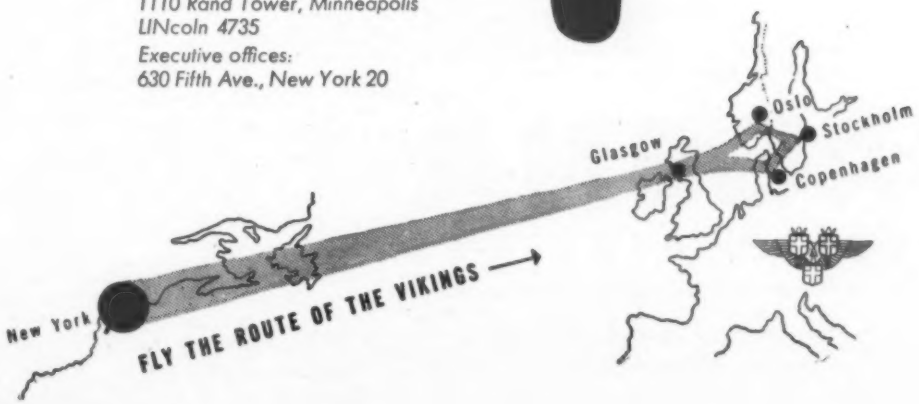

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## Pre-War Version

Circling the globe via scheduled air carriers was possible even before the war. Here's how it was done:

You flew from Miami to London on a Pan American Airways flying boat, and there transferred to an aircraft operated by Imperial Airways (predecessor to British Overseas Airways Corporation) on a flight for Singapore. Air France and KLM also had services to the Orient. From Singapore, Bankok, and other major Far Eastern points it was not difficult to find air transportation to Hong Kong, where connection was made with Pan Am's trans-Pacific service into San Francisco.

Connections were uncertain, and the entire round-the-world journey was likely to require nearly three weeks.

journey was from London to New York on a BOAC Constellation, which reached La Guardia next morning.

The final short leg from New York to Montreal could be flown via either Northeast Airlines or Colonial Airlines, putting the round-the-world traveler back at his starting point on the afternoon of the 10th day after departure.

### 26,500 Miles for $2,369

Total mileage flown on this schedule was about 26,500 miles, the fare $2,369.25, including meals and lodging at stopover points.

A slightly faster and less expensive round-the-world service was available using a BOAC Constellation from New York to London, taking off again, after a three-hour layover, and going to Sydney on a BOAC Lancastrian. From Sydney to San Francisco, BCPA's DC-4 service was used, and the San Francisco-New York leg was flown via one of the domestic transcontinental carriers. This route covered about 25,400 miles, required about nine days, and cost $2,190.25, including tax on the U. S. portion of the trip.

The schedules quoted above were available, it was pointed out, some months before Pan American inaugurated its round-the-world service, and they have since been superseded by schedules affording better connections and thereby shortening the total elapsed time.

The Britishers admit they can not yet equal Pan Am's quoted fare of $1,700 or its advertised seven-day schedule. They point out, though, that Pan Am flies a much shorter route—19,462 miles against their 26,000 miles—and that their nine or 10-day schedule affords the traveler a more leisurely flight with more time to rest or to see points of interest en route.

# PERSONNEL

★ ★ ★ ★

## Administrative:

**Ronald C. Kinsey,** who until recently was vice president of Western Air Lines, has been appointed v.p. of Continental Air Lines in Washington, D. C.

**George Clay** has been elected secretary of TWA, succeeding Arthur Jens, recently resigned. Clay served as executive assistant to E. Lee Talman when the latter was executive vice president.

**Kenneth Murdoch,** assistant secretary of American Overseas Airlines, has been appointed director of planning, to succeed H. Danforth Starr recently elected secretary-treasurer. Murdoch, who will continue as assistant secretary, joined the company (then American Export Airlines) in June, 1940.

**Harold D. Koontz,** veteran transportation analyst, has been appointed executive assistant to TWA President LaMotte T. Cohu. Koontz joined TWA April, 1945, as coordinator of planning, before that being assistant to the vice president in charge of research of the Association of American Railroads.

**John G. Deater,** 18-year veteran with American Airlines, has been appointed personnel director, replacing **Louis A. Traxel,** resigned. Much of his service has been as a flight captain, although he has been in the personnel department since January, 1944.

**Robert A. MacDonald,** formerly with the Farmers and Merchants National Bank of Los Angeles, has been named assistant secretary and assistant treasurer of Los Angeles Airways.

## Traffic and Sales:

**J. Raymond Bell,** for nearly five years director of advertising and public relations for Capital Airlines, has resigned effective Aug. 1. He expects to open a public relations office in Washington. **William Ross,** manager of Capital's system news bureau, has also resigned.

**Ted Cate** has resigned as advertising director of Western Air Lines to establish his own advertising business. Cate, who joined Western in 1937, has been in air transport advertising for 14 years and is credited with packaging the first all-expense air tours. Cate's resignation results in consolidation of Western's publicity and advertising departments under **Kenneth E. Allen,** who joined the line last November as director of public relations.

**Dale Armstrong,** assistant to the chairman of the board of Northrop Aircraft, Inc., has joined TWA as director of publicity in charge of news bureaus. While nothing has been said officially regarding the status of **Adm. H. B. Miller, TWA's** vice president-public relations, an announcement is expected shortly. **Al Cline,** Armstrong's assistant for three years, was named director of public relations for the manufacturing company.

George Clay

**Robert B. Smith,** former city traffic manager for Western Air Lines at Pasadena, has been appointed district traffic manager of Washington with headquarters at Seattle. He opened Seattle offices early this month in preparation for the airline's Aug. 1 inauguration of service over its new route between San Francisco and Seattle, via Portland.

**William W. Marsh** has been named Western Air Lines' district traffic manager of Oregon and opened offices at Portland early this month. He was formerly city traffic manager for WAL at Long Beach, Calif.

**F. Darius Benham** and **Larry Nixon** have been appointed public relations counsel for Colonial Airlines, with **Harold J. Halton** retained as director of the news bureau.

Brack Ford

**Reginald Brack** has been named to the newly created position of general sales manager for Braniff Airways with headquarters at the Dallas base. Brack joined Braniff in May, 1944, as district traffic manager in Kansas City.

**Herbert D. Ford,** Washington district sales manager for American Airlines from 1936 to 1944, has returned to that position, succeeding **Walter S. Weismann, Jr.** The latter was named district sales manager for Buffalo, Syracuse, and Rochester. Ford joined American Airways, predecessor of American Airlines, in 1931 as a sales representative in Cincinnati.

**Thomas J. Harris,** formerly New York cargo sales manager for American Airlines, has been designated European cargo sales manager of American Overseas Airlines with headquarters in London. He first joined AA in 1938.

**W. C. England,** for the past year assistant to the director of public relations for Mid-Continent Airlines, has been named district traffic manager at New Orleans.

**Gordon Grout,** a member of Eastern Air Lines' traffic department since 1940, has been appointed manager of the company's new ticket office at 1616 Collins Ave., Miami Beach, Fla.

**James G. Swartz, Jr.,** associated for the past year and a half with TWA's news bureau, has joined Mid-Continent Airlines as assistant to the director of public relations.

**C. W. Blakey, Jr.,** district traffic manager for Pan American Airways in Honolulu, has been appointed assistant sales manager for the Pacific-Alaska Division with headquarters in San Francisco.

**W. W. Scott** has been designated assistant to the air express manager for the Atlantic Division of Pan American Airways. He was formerly air express representative with PAA in England.

**John W. Smith** has been promoted from reservations agent to traffic and sales representative for Eastern Air Lines in Baltimore.

**Earle R. C. Milliken,** formerly traffic manager for Riddle Aviation Co., has been named traffic representative in New York for Skyways International, Inc. with offices at 699 Madison Ave. Skyways operates services to Europe, the Middle East, Central and South America.

**Jack Francis** has been named supervisor of rates and tariffs for Mid-Continent Airlines. He was formerly with a railroad in Kansas City for five years as city passenger agent.

**W. T. Rimes,** former regional manager of agencies for American Airlines in Los Angeles, and **Nelson K. Milliken,** former city sales manager for American in Los Angeles, have dissolved their partnership in the Hollywood Boulevard Travel Service, with Rimes taking over sole ownership of the agency.

## Operations-Maintenance:

**Allen P. Shelly,** who has been with Continental Air Lines for over eight years, has been appointed director of engineering and maintenance, effective July 15, succeeding **Stanley R. Shatto** (see cover picture). Shelly joined CAL as chief pilot in 1939, and has been serving as chief flight engineer.

**A. N. Chapman,** TWA safety director for the past 18 months, has resigned to accept a similar position with Pratt & Whitney Division of United Aircraft Corp.

**Arthur L. Fornoff,** manager of the helicopter service department of Bell Aircraft Corp., has been named superintendent of maintenance and engineering for Los Angeles Airways, recently awarded the country's first certificate to operate a scheduled mail-property helicopter air service.

**Malcolm F. Plaeger,** former station manager for Eastern Air Lines in Corpus Christi, Tex., has been transferred to same post in Birmingham.

**John G. Coulter,** formerly test pilot and engineer for Consolidated Vultee and North American Aviation, has been appointed superintendent of maintenance of Southwest Airways.

**T. M. Sullivan,** director of international properties and an assistant secretary, is leaving TWA to take a post with the Port of New York Authority, operator of New York's airports. His successor is **John M. Cleary, Jr.,** who has been named acting director of international properties.

**Francis H. Schulte,** who joined TWA in 1940, as passenger agent in Pittsburgh, has been appointed station manager in Washington, replacing **Thomas Needham,** resigned.

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**A. G. Henneforth** has resigned as manager of food service for TWA to take advantage of an annuity he held with the Fred Harvey organization with which he was associated for 27 years before joining the airline.

**Larry Cates,** veteran pilot, has been named Washington representative of the Air Line Pilots Association with headquarters at 1185 National Press Bldg. Cates was formerly with TWA, serving in various capacities, including that of assistant to the late Jack Nichols, TWA vice president.

**Claude H. Smith** has been made southwest district representative for the Minneapolis-Honeywell Regulator Co., aeronautical division, with headquarters in Fort Worth.

**William M. Schwarz,** former assistant general manager of TWA's eastern region, has been appointed chief of scheduled air transport division, Port of New York Authority.

**W. R. Rhoads,** who during the war served as project engineer for Lockheed Aircraft Corp., has been named manager of the Lockheed Aircraft Service, Inc. American Atlantic base at MacArthur Airport, Sayville, L. I.

**Ben J. Cumnock,** formerly chief engineer with Braniff Airways, has been appointed aviation engineer in The Texas Company's aviation division with Houston headquarters.

**Robert Campbell,** formerly in airport work for CAA, has been appointed director of aeronautics for the Territory of Hawaii, a position created by the last legislature. Campbell was superintendent of maintenance for Hawaiian Airlines during the war and more recently v.p. of Andrew Flying Service, Honolulu.

# Airline Commentary

By ERIC BRAMLEY

WE ENJOY sitting next to first-riders on the airlines and noting their reactions . . . We sat next to a lady on United's Washington-Chicago DC-4 the other day, and her reaction to the airlines was interesting. . . . "The thing that has impressed me most so far," she said, "is that everyone is so darned polite. Why, they actually thank you when you call for information". . . . On the same airplane was Harold Crary, United's vice president-traffic and sales, who keeps his finger on the public pulse by traveling up and down the aisle talking to passengers and seeing how they are enjoying their trip . . . .He joined in the conversation and asked the lady why she was taking her first airline trip. . . . "Well," she said, "I went to the railroad ticket office, stood in line for almost an hour, and even then no one was interested in taking care of me or getting me space. So I decided that now was the time" . . . .The moral of this story might be that even with the big postwar increase in air travel, the old-time politeness and courtesy still pays off.

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**Last issue we said that LaMotte T. Cohu, TWA's new president, had paid a visit to Washington and had chatted with all TWA employes, including the "baggage smashers" . . . The issue was no sooner out than Fran Schulte, TWA's Washington station manager, sent a memo to Tom Bell, TWA's Washington news bureau chief, stating that we should get "a box of Snickers" if we "can prove that any TWA Washington employe ever smashed a bag" . . . We cannot prove that statement specifically regarding TWA's Washington employes, but we are willing to submit one sadly battered suitcase (which has been carried by TWA as well as other airlines) as proof of what happens to baggage . . . And we're reasonably certain that TWA Washington has at some time or other contributed some nicks, scratches, and possibly a few gouges, to the baggage of its customers . . . Of course, if it can be proved otherwise, we will reluctantly pass up the box of Snickers, and the Washington station will go down in history as the only one that never smashed a bag . . .**

•

In New York there's an Airlines Traffic Club. . . Members are the airline sales representatives, and they've been referring to themselves as the "poor man's Wings Club". . . They also began calling themselves the "streetmen" of the airlines, but they had to give this up . . . One of the female members squawked . . .

•

**Blue Bird Air Service, which operates the airport-to-downtown ground service in Chicago, has sent the airlines a booklet entitled "Your Passengers, Our Stewardship" . . . In it M. A. Caffarello, president, who has been in the business for 15 years, discusses frankly some of his problems and plans . . . Blue Bird, which now has a $1 fare (77c to the company, the rest tax) with its 23-passenger Airporter coaches, is aiming for a 50c tariff, plus tax . . . It's interesting to note that its current load factor is only seven passengers per trip . . . Mr. Caffarello also hints that he and other operators would have an easier time if the airlines could agree on what they want in ground transportation . . . He may have something there . . . Anyway, he's to be congratulated for his frank booklet . . .**

•

Recently we called up an airline that is operating DC-6 equipment . . . Pretending that we had never ridden on the airlines before, we asked about service and schedules, the purpose being to see if the reservations gal would tell us that there is an extra fare on the DC-6 . . . She never did . . . There can certainly be no quarrel about paying an extra fare on the DC-6, but we think that the public is entitled to know about it before purchasing tickets . . .

•

**Delta Air Lines seems to have the darndest experiences wtih people asking questions . . . At Jackson, a woman called reservations and wanted to know, "When does your four-engined bomber get in from Atlanta?" . . . And at Shreveport a well-dressed man walked up to the counter and asked, "When is your next flying machine coming in? . . .**

* * * *

# Braniff Reservations Plan Extended to CAL, MCA

A new interline agreement involving Braniff Airways, Continental Air Lines and Mid-Continent Airlines is believed to mark the first time in air transportation history that one carrier has granted to other airlines full authority to make and confirm instantaneous reservations on any flight between any two cities on its entire system.

Initially, Braniff is extending use of its automatic reservation system, in effect over its own routes for more than a year, to the Mid-Continent and Continental systems, enabling these carriers to sell space to points on the Braniff routes. However, it is expected that the plan will be expanded later so that each line can sell on the other two without confirming reservations.

To air travelers, this agreement means that reservations offices in the cities served by Continental and MCA can promptly confirm space on any Braniff flight between any of the 30 cities on the latter's domestic routes. This service will be extended to cover Braniff routes in Latin America when that service is inaugurated.

Previously, confirmation for interline or connecting space on another carrier had to be requested by wire from the other line's central office, and frequently had to be relayed from there to the city controlling the desired space. Under the new plan, space is assumed available on any Braniff flight by the other two airlines and can be sold accordingly until a "stop sales" message for a particular schedule is received from the Braniff reservation control office.

### Designed by Reid

Braniff's "Auto Sales" program, which has completely streamlined the airline's system of making and recording reservations, was designed last summer by Langhorne Reid, who after his return to the airline in 1945 after four years of service with the Army Air Forces devoted much time and study to a means of cutting the red tape and time involved in getting space on a commercial airline plane. He has since been made system reservations manager.

Under the "Auto Sales" system, seats are automatically sold through the city and field ticket offices and a centrally located control office is notified by teletype. As a flight approaches capacity, all stations are sent a "stop sale" message, and a circled station on the master control chart indicates stop-sale on that portion of the trip. This eliminated previous restraints on reservations which required inter-company telegrams and check-back calls to passengers.

Langhorne Reid

## Lipscomb Leaves American For PAA; Sternberg Moves Up

Willis G. Lipscomb has resigned as assistant vice president-sales and general traffic manager for American Airlines to become vice president of traffic and sales for Pan American Airways. He fills the position held until recently by V. E. Chenea, who was ordered to part-time duty by his physician. Lipscomb has been general traffic manager of American since 1942, and prior to that was southwestern sales manager in Dallas.

Walter Sternberg, director of passenger sales for American, moves up to become general sales and traffic manager. He has had more than 16 years of airline traffic experience, being general traffic manager of Eastern Air Lines until June, 1946, when he joined American Overseas as director of international traffic procedures. He became American's director of passenger sales last fall.

## AA Tests Automatic Ticketing Machine

American Airlines has installed an automatic ticket vending machine in its Boston ticket office, and if its use proves practicable, similar machines will be adopted at other high-volume terminals throughout American's system.

Result of more than a year's study by American Airlines, the machine is designed to provide the fastest, most efficient ticketing procedure in commercial airline history.

Finished in black like a typewriter, the machine resembles a large automatic toaster. Near the top at one end is a slot, and below this is a coin slide similar to those used on juke boxes. Inside the machine is a large pack of pre-printed tickets.

When a passenger has purchased his ticket, the agent places a metal slug in the machine, pushes in the slide, and out from the slot pops a Boston-New York ticket, somewhat in the same manner as postage stamps come out of vending machines. The ticket agent has no paper work except to enter the trip, date and time on the back of the passenger's portion of the two-coupon ticket.

The ticket looks much like two theater tickets joined together at one end but perforated so they can be torn apart. One part is the passenger's receipt, the other is for the agent at the airport.

An added desirable feature is elimination of the necessity for individual audits by ticket agents. The agent purchases slugs from his daily cash, and at the end of the day balances his cash and slugs against the tickets sold.

**Automatic Vender—** American Airlines' new automatic ticket vending machine, designed for speedy, efficient service at high-volume terminals, is being tested at the company's Boston ticket office.

## PAA-Steamship Ticketing Agreements Approved by CAB

Civil Aeronautics Board approval of interline ticketing agreements between Pan American Airways and six steamship companies has made it possible for travelers to buy a ticket good for a combination sea-air trip —one way by air, one way by sea.

The agreements, most of which were filed early in the war or before the war but which were not approved earlier because of wartime disruptions to civilian passenger sailings via steamship lines, are between PAA and the following companies:

Furness, Whithy & Co., Ltd.; Mississippi Shipping Co., Inc.; Grace Line, Inc.; Compania Sud Americana de Vapores (Chilean line); Alcoa Steamship Co., Inc.; and New York and Cuba Mail Steamship Co., the New York and Porto Rico Steamship Co., and Clyde-Mallory Lines (these last three companies operate under a single organization as AGWI Lines).

The agreements offer a 10% round trip discount to be applied to combination sea-air round trips, with each carrier assuming such portion of the discount as applies to his share of the transportation sold.

The Board said it did not believe these agreements contrary to the public interest, since, obviously, neither PAA nor any of the steamship lines will attempt to sell passage on the other form of carrier to its own disadvantage.

On the other hand, CAB said it thought there would be many instances in which a passenger could be sold a combination trip where he might otherwise not travel at all. Air transport generally should benefit, the Board said, because these agreements provide additional sales outlets for air travelers.

### Capital Airlines Offers Tours on Instalment Plan

An eight-day, all expense "package" vacation, using both air and water transportation, is being offered by Capital Airlines at a total cost of $161.52, payable in monthly installments of $13.46.

The trips originate in Washington, and the vacationer flies from there to Buffalo, where connection is made with the S. S. City of Cleveland III, largest cruise ship on the Great Lakes. Detroit, Mackinac Island, Sault Ste. Marie, Chicago, Georgian Bay, Cleveland and several Canadian points are visited during the cruise, which runs from Saturday through Saturday.

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## C&S Cuts Mid-Week Round-Trip Fare 15%

Special round-trip fares offering 15% savings from the standard tariff have been placed in effect by Chicago and Southern Air Lines between certain cities along its route in an effort to stimulate mid-week air travel. To benefit from the reduced fares which went into effect July 8, passengers must travel on a Tuesday, Wednesday, or Thursday on both the going and returning portions of the trip. The ticket remains valid for 16 days from commencement of the trip.

As an experimental measure, the 15% lower fares will apply initially only between the following pairs of cities: Chicago-Memphis; Chicago-Jackson; Chicago-New Orleans; St. Louis-Memphis; St. Louis-Jackson; St. Louis-New Orleans; Memphis-Jackson; Memphis-New Orleans; Jackson-New Orleans; Houston-Shreveport.

### Slick Lowers Freight Rate

Countering reduced air cargo tariffs announced recently by 18 scheduled airlines, Slick Airways, Inc., has filed with CAB new low rates averaging 12¾c per ton-mile.

These rates, said to be the lowest in air freight history, are scheduled to become effective, subject to Board approval, on August 1, same date on which the scheduled carriers will replace their current 26.5c rate with new ones averaging about 20c per ton-mile.

### Advertising Notes

The newspaper advertising campaign of **The Glenn L. Martin Co.**, publicizing its 2-0-2 transport, won a place in the 1947 edition of The Blue Book, annual compilation of newspaper advertising success stories published by the Bureau of Advertising, American Newspaper Publishers Association. Martin's is the only aviation campaign appearing among the 50 case histories of noteworthy advertising successes set forth in the volume. . . **National Airlines** retained Platt-Forbes, Inc., New York City, as advertising counsel, effective July 1. Grant Advertising, Inc., which represented NAL for more than a year, resigned the account after the airline became a competitor with another Grant aviation account by entering the international field . . . **Mid-Continent Airlines** has adopted a new policy designed to make advertising a more potent and effective salesman for the company. Basically, the campaign will attempt to replace institutional ads with a series of human interest sales messages beamed to specific groups and keyed to local interest. While a major portion of the advertising will be aimed at business and industry, tourist trade will not be neglected. The advertising budget has been increased and placement will be made through the Merritt-Owens Advertising Agency of Kansas City.

# Domestic Airline Revenues-Expenses for April

| AIRLINES | TOTAL OPERATING REVENUES | PASSENGER REVENUES | MAIL REVENUES | EXPRESS REVENUES | FREIGHT REVENUES | EXCESS BAGGAGE REVENUES | NON-SCHEDULED TRANSPORT REV. | TOTAL OPERATING EXPENSES | AIRCRAFT OPERATING EXPENSES | GROUND & INDIRECT EXPENSES | NET OPERATING INCOME |
|---|---|---|---|---|---|---|---|---|---|---|---|
| All American | $ 63,106 | $ .... | $ 61,679 | $ 1,112 | $ .... | $ .... | $ .... | $ 83,153 | $ 44,168 | $ 38,985 | $ -20,047 |
| American | 6,701,664 | 5,825,157 | 265,312 | 177,340 | 196,518 | 61,390 | 148,256 | 6,625,974 | 2,762,367 | 3,863,607 | 75,690 |
| Braniff | 918,785 | 829,690 | 35,306 | 26,538 | 7,201 | 6,465 | 4,164 | 970,527 | 434,483 | 536,044 | -51,742 |
| Caribbean | 40,872 | 32,748 | 5,948 | .... | 972 | 296 | 837 | 44,951 | 18,257 | 26,694 | -4,079 |
| C & S | 638,751 | 514,285 | 83,419 | 17,891 | 8,518 | 4,614 | .... | 666,795 | 291,079 | 375,716 | -28,044 |
| Colonial | 236,331 | 198,014 | 32,628 | 3,002 | .... | 1,454 | 200 | 309,581 | 122,326 | 187,255 | -73,250 |
| Continental | 296,028 | 232,680 | 50,482 | 2,686 | 2,157 | 2,359 | 44 | 325,772 | 134,790 | 190,982 | -29,744 |
| Delta | 1,092,315 | 999,254 | 37,112 | 25,827 | 12,901 | 15,175 | .... | 943,115 | 433,515 | 509,600 | 149,200 |
| Eastern | 4,998,306 | 4,616,624 | 132,206 | 133,049 | 38,636 | 68,005 | 1,005 | 3,691,342 | 1,790,030 | 1,901,312 | 1,306,964 |
| Hawaiian | 254,816 | 203,978 | 2,819 | 7,522 | 23,903 | 6,737 | 9,668 | 252,710 | 112,614 | 140,096 | 2,106 |
| Inland | 172,772 | 122,920 | 46,660 | 955 | 721 | 837 | .... | 167,888 | 85,568 | 82,320 | 4,884 |
| MCA | 424,680 | 338,687 | 77,166 | 3,568 | 1,141 | 2,268 | .... | 456,799 | 198,225 | 258,574 | -32,119 |
| National | 991,301 | 913,389 | 31,373 | 13,526 | 10,190 | 18,465 | .... | 879,348 | 432,153 | 447,195 | 111,952 |
| Northeast | 372,785 | 312,843 | 52,811 | 4,242 | 912 | 644 | .... | 457,402 | 214,706 | 242,696 | -84,618 |
| Northwest * | 1,893,203 | 1,562,743 | 133,662 | 98,462 | 17,228 | 11,599 | 116,599 | 2,217,931 | 951,826 | 1,266,105 | -324,727 |
| PCA | 1,704,435 | 1,334,676 | 215,001 | 75,228 | 54,311 | 5,396 | 6,571 | 1,656,431 | 751,456 | 904,975 | 48,003 |
| TWA | 3,909,361 | 3,286,648 | 280,091 | 183,831 | 89,709 | 40,412 | 14,576 | 4,293,690 | 1,679,962 | 2,613,728 | -384,329 |
| United | 5,253,728 | 4,447,411 | 322,920 | 245,891 | 181,231 | 31,195 | 2,774 | 5,567,302 | 2,139,863 | 3,427,439 | -313,574 |
| Western | 967,332 | 829,305 | 89,396 | 16,101 | 11,273 | 5,554 | 1,986 | 935,446 | 429,956 | 505,490 | 31,886 |
| TOTALS | 30,930,571 | 26,601,052 | 1,955,991 | 996,771 | 657,522 | 282,730 | 306,680 | 30,546,157 | 13,027,344 | 17,518,813 | 384,412 |

* Figures are for entire system. Company did not give breakdown between international and domestic routes.

NOTE: These figures are taken from monthly reports filed by the airlines with CAB. The data are tentative and subject to later change.

# Domestic Airline Traffic Summary for April

| AIRLINES | REVENUE PASSENGERS | REVENUE PASSENGER MILES | AVAILABLE SEAT MILES | PASSENGER LOAD FACTOR | MAIL TON-MILES | EXPRESS TON-MILES | FREIGHT TON-MILES | TOTAL TON-MILES REV. TRAFFIC | AVAILABLE TON-MILES FLOWN | % AVAILABLE TON-MILES USED | REVENUE PLANE-MILES | SCHEDULED MILES | % SCHEDULED MILES COMPLETED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| All American | .... | .... | .... | ... | 3,071 | 2,461 | .... | 5,532 | 20,635 | 26.8% | 152,380 | 158,392 | 96.2% |
| American | 246,803 | 119,438,000 | 153,966,000 | 77.6% | 590,581 | 420,363 | 699,733 | 13,609,132 | 19,891,593 | 68.4% | 4,909,237 | 4,952,665 | 95.8% |
| Braniff | 49,967 | 16,269,000 | 25,916,000 | 62.8% | 58,844 | 68,891 | 23,104 | 1,708,814 | 2,722,711 | 62.8% | 907,933 | 907,234 | 97.6% |
| Caribbean | 6,000 | 371,000 | 778,000 | 47.7% | 326 | .... | 664 | 30,801 | 72,310 | 42.6% | 31,993 | 32,743 | 99.3% |
| C & S | 25,738 | 10,009,000 | 15,225,000 | 65.7% | 30,038 | 55,090 | 23,458 | 1,117,993 | 1,957,133 | 57.1% | 572,883 | 590,885 | 96.9% |
| Colonial | 10,981 | 3,187,000 | 4,640,000 | 68.7% | 6,147 | 4,008 | .... | 334,127 | 454,233 | 72.9% | 232,339 | 239,406 | 90.6% |
| Continental | 13,996 | 4,477,000 | 7,705,000 | 58.1% | 12,807 | 6,077 | 7,180 | 477,132 | 876,979 | 54.4% | 373,944 | 378,900 | 97.9% |
| Delta | 44,143 | 19,525,000 | 27,608,000 | 70.7% | 61,854 | 62,571 | 49,963 | 2,095,394 | 3,873,305 | 54.1% | 967,523 | 982,014 | 98.0% |
| Eastern | 159,362 | 86,286,000 | 115,063,000 | 74.9% | 295,346 | 338,775 | 147,641 | 9,532,446 | 17,393,259 | 54.8% | 3,764,314 | 3,911,450 | 96.2% |
| Hawaiian | 23,102 | 3,172,000 | 4,002,000 | 79.3% | 2,818 | 7,925 | 50,950 | 330,825 | 536,186 | 61.7% | 197,219 | 157,518 | 99.0% |
| Inland | 6,428 | 2,272,000 | 3,688,000 | 61.6% | 7,974 | 3,097 | 2,052 | 241,884 | 390,878 | 61.9% | 193,719 | 206,240 | 93.9% |
| MCA | 20,156 | 6,303,000 | 10,047,000 | 62.7% | 18,231 | 10,551 | 3,741 | 667,101 | 1,129,088 | 59.1% | 496,673 | 512,032 | 97.0% |
| National | 31,571 | 16,637,000 | 24,544,000 | 67.8% | 52,301 | 33,074 | 39,626 | 1,823,500 | 3,664,046 | 49.8% | 857,895 | 886,690 | 96.0% |
| Northeast | 30,842 | 5,821,000 | 10,247,000 | 56.8% | 4,959 | 8,219 | 1,411 | 499,967 | 1,046,226 | 47.8% | 327,134 | 382,411 | 83.1% |
| Northwest | 54,978 | 28,412,000 | 39,475,000 | 71.9% | 170,209 | 135,863 | 41,491 | 3,063,977 | 4,991,019 | 61.4% | 1,364,584 | 1,406,856 | 94.7% |
| PCA | 102,317 | 27,238,000 | 42,569,000 | 63.9% | 55,099 | 217,275 | 193,488 | 2,928,463 | 5,757,604 | 50.9% | 1,306,192 | 1,325,147 | 96.1% |
| TWA | 83,541 | 64,520,000 | 90,516,000 | 71.3% | 619,713 | 491,864 | 340,399 | 7,823,306 | 11,338,142 | 69.0% | 3,821,329 | 3,622,566 | 98.1% |
| United | 154,617 | 93,420,000 | 113,610,000 | 82.2% | 719,241 | 602,937 | 671,227 | 11,073,466 | 16,829,814 | 65.8% | 4,605,412 | 4,802,897 | 94.6% |
| Western | 41,408 | 15,702,000 | 23,470,000 | 66.9% | 64,077 | 45,883 | 38,539 | 1,732,198 | 2,677,543 | 64.7% | 616,903 | 613,428 | 98.7% |
| TOTALS | 1,105,950 | 523,059,000 | 713,069,000 | 73.4% | 2,773,636 | 2,514,924 | 2,334,687 | 59,093,058 | 95,622,702 | 61.8% | 25,699,606 | 26,069,434 | 95.9% |

# U. S. International Airline Traffic Summary for April

| AIRLINES | REVENUE PASSENGERS | REVENUE PASSENGER MILES | AVAILABLE SEAT MILES | PASSENGER LOAD FACTOR | U. S. MAIL TON-MILES | FOREIGN MAIL TON-MILES | EXPRESS TON-MILES | FREIGHT TON-MILES | TOTAL TON-MILES REV. TRAFFIC | AVAILABLE TON-MILES FLOWN | % AVAILABLE TON-MILES USED | REVENUE PLANE-MILES | SCHEDULED MILES | % SCHEDULED MILES COMPLETED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| American | 4,639 | 4,653,000 | 8,847,000 | 52.6% | 7,653 | 702 | .... | 113,689 | 623,494 | 1,231,205 | 50.6% | 229,421 | 181,446 | 99.6% |
| Amer. O'Seas | 3,974 | 11,121,000 | 18,294,000 | 60.8% | 192,279 | 39,124 | 113,823 | .... | 1,591,634 | 2,768,249 | 57.1% | 587,023 | 584,417 | 97.2% |
| C & S | 618 | 423,000 | 1,665,000 | 25.4% | 112 | .... | .... | 3,824 | 47,842 | 180,931 | 26.4% | 36,900 | 41,100 | 90.0% |
| Eastern | 1,204 | 1,205,000 | 2,996,000 | 40.2% | 1,641 | .... | .... | 12,535 | 144,663 | 460,210 | 31.4% | 60,060 | 60,060 | 100.0% |
| National | 2,588 | 801,000 | 1,573,000 | 50.9% | 614 | .... | 3,395 | .... | 86,457 | 229,991 | 37.6% | 34,198 | 34,680 | 98.6% |
| Northwest | 1,360 | 2,173,000 | 5,978,000 | 36.4% | 33,767 | .... | 6,611 | 12,102 | 277,326 | 709,608 | 39.1% | 148,829 | 153,612 | 96.7% |
| Pan American | | | | | | | | | | | | | | |
| Latin Amer. | 58,743 | 44,407,000 | 90,414,000 | 49.1% | 182,024 | 85,268 | 1,394,515 | .... | 6,209,368 | 12,593,836 | 49.3% | 2,590,710 | 2,692,373 | 96.2% |
| Atlantic | 10,885 | 22,288,000 | 30,168,000 | 73.9% | 109,500 | 50,782 | 259,373 | .... | 2,812,695 | 4,880,264 | 57.6% | 824,688 | 794,352 | 96.5% |
| Pacific | 3,828 | 11,945,000 | 16,496,000 | 72.4% | 277,067 | 7,026 | 218,164 | .... | 1,681,836 | 2,333,891 | 72.1% | 608,414 | 596,791 | 99.5% |
| Alaska | 2,409 | 2,444,000 | 4,913,000 | 49.8% | 25,484 | .... | 26,959 | .... | 307,599 | 726,934 | 42.3% | 212,251 | 217,912 | 84.4% |
| TWA | 4,831 | 16,040,000 | 18,974,000 | 84.5% | 212,367 | 65,529 | 271,391 | .... | 2,372,773 | 3,439,753 | 68.9% | 640,828 | 505,909 | 98.9% |
| TOTALS | 95,079 | 117,500,000 | 200,318,000 | 58.7% | 1,042,508 | 248,431 | 2,294,231 | 142,150 | 16,155,687 | 29,574,872 | 54.6% | 5,973,322 | 5,862,652 | 96.6% |

NOTE: Data in above tabulations were compiled by American Aviation Publications from monthly reports filed by the airlines with the Civil Aeronautics Board. Figures for American Airlines include that carrier's service to Mexico but not to Canada; for C & S to Havana; for Eastern to Puerto Rico; National to Havana; and Northwest to Alaska. Operations of U. S. carriers into Canada are included in domestic reports to CAB, in accordance with CAB filing procedures.

Note: Data in these tabulations were compiled by American Aviation Publications from monthly reports filed by the airlines with Civil Aeronautics Board.

# U. S. International Airline Revenues-Expenses for Jan.-March

| AIRLINES | TOTAL OPERATING REVENUES | PASSENGER REVENUES | U. S. MAIL REVENUES | FOREIGN MAIL REVENUES | EXPRESS REVENUES | FREIGHT REVENUES | EXCESS BAGGAGE REVENUES | NON-SCHEDULED TRANSPORT REV. | TOTAL OPERATING EXPENSES | AIRCRAFT OPERATING EXPENSES | GROUND & INDIRECT EXPENSES | NET OPERATING INCOME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| American | $ 831,335 | $ 669,997 | $ 9,909 | $ 6,717 | $ .... | $ 89,996 | $ 19,021 | $ .... | $ 983,360 | $ 454,042 | $ 529,317 | $ -152,024 |
| Amer. O'Seas | 2,992,473 | 1,975,862 | 253,183 | 271,669 | 318,310 | .... | 40,564 | 6,171 | 4,959,220 | 2,232,383 | 2,726,836 | -1,966,746 |
| C & S | 227,010 | 118,892 | 103,469 | .... | .... | 2,791 | 1,854 | 1 | 249,754 | 118,506 | 131,248 | -22,744 |
| Eastern | 184,357 | 172,879 | 2,202 | .... | .... | 7,028 | 1,846 | 399 | 226,571 | 140,608 | 85,963 | -42,214 |
| National | 200,013 | 184,833 | 843 | .... | 4,151 | .... | 10,125 | .... | 198,184 | 56,013 | 142,170 | 1,828 |
| Northwest | 534,775 | 435,681 | 76,032 | .... | 8,338 | 11,062 | 3,660 | .... | 762,069 | 404,610 | 357,458 | -227,293 |
| Pan American | | | | | | | | | | | | |
| Latin Amer. | 13,743,279 | 10,147,446 | 570,044* | 684,816 | 1,614,650 | .... | 460,994 | 74,316 | 14,636,235 | 5,759,390 | 8,876,844 | -892,955 |
| Atlantic | 8,079,832 | 3,371,618 | 3,779,883* | 326,185 | 398,724 | .... | 53,505 | 56,849 | 6,846,990 | 2,846,053 | 4,000,936 | 1,232,842 |
| Pacific | 5,251,100 | 2,210,988 | 2,593,730* | 94,208 | 284,825 | .... | 36,533 | 9,023 | 4,151,963 | 2,020,455 | 2,131,507 | 1,099,136 |
| Alaska | 1,370,031 | 387,569 | 939,974 | .... | 36,313 | .... | 5,646 | .... | 1,167,547 | 516,862 | 650,685 | 202,484 |
| TWA | 4,469,356 | 2,804,884 | 393,489 | 512,977 | 396,991 | .... | 106,161 | 167,138 | 6,240,441 | 2,392,563 | 3,847,877 | -1,771,084 |
| TOTALS | 37,883,561 | 22,480,649 | 8,722,758 | 1,896,572 | 3,062,302 | 110,877 | 739,909 | 313,897 | 40,422,334 | 16,941,485 | 23,480,841 | -2,538,770 |

* Estimated

** Under CAB filing procedures, the airlines file a cumulative quarterly financial report for January-March in place of a separate statement for the month of March. Traffic data, however, are reported separately for each month.

NOTE: Data in above tabulations were compiled by American Aviation Publications from monthly reports filed by the airlines with the Civil Aeronautics Board. Figures for American Airlines include that carrier's service to Mexico but not to Canada; for C & S to Havana; for Eastern to Puerto Rico; National to Havana; and Northwest to Alaska. Operations of U.S. carriers into Canada are included in domestic reports to CAB, in accordance with CAB filing procedures.

# Summary of U. S. International Airline Traffic for March

| AIRLINES | REVENUE PASSENGERS | REVENUE PASSENGER MILES * | AVAILABLE SEAT MILES * | PASSENGER LOAD FACTOR | U. S. MAIL TON-MILES | FOREIGN MAIL TON-MILES | EXPRESS TON-MILES | FREIGHT TON-MILES | TOTAL TON-MILES REV. TRAFFIC | AVAILABLE TON-MILES FLOWN | % AVAILABLE TON-MILES USED | REVENUE PLANE-MILES | SCHEDULED MILES | % SCHEDULED MILES COMPLETED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| American | 4,563 | 4,924,000 | 8,810,000 | 55.9% | 8,428 | 475 | .... | 123,310 | 687,033 | 1,257,592 | 54.6% | 245,800 | 182,902 | 100.0% |
| Amer. O'Seas | 2,529 | 7,804,000 | 16,775,000 | 46.5% | 170,056 | 37,546 | 219,400 | .... | 1,296,709 | 2,422,005 | 53.5% | 530,220 | 594,591 | 87.6% |
| C & S | 731 | 501,000 | 1,665,000 | 30.1% | 127 | .... | 5 | 2,166 | 54,175 | 155,620 | 34.8% | 36,990 | 42,470 | 88.7% |
| Eastern | 1,198 | 1,199,000 | 3,103,000 | 38.6% | 1,294 | .... | .... | 7,392 | 133,391 | 475,550 | 28.1% | 62,062 | 62,062 | 100.0% |
| National | 3,530 | 1,025,000 | 1,661,000 | 61.7% | 566 | .... | 4,194 | .... | 110,472 | 242,681 | 42.3% | 36,099 | 35,526 | 100.0% |
| Northwest | 1,309 | 2,047,000 | 5,348,000 | 38.3% | 33,889 | .... | 8,253 | 13,914 | 270,252 | 677,663 | 39.9% | 153,913 | 155,168 | 99.1% |
| Pan American | | | | | | | | | | | | | | |
| Latin Amer | 71,161 | 49,641,000 | 85,551,000 | 58.0% | 199,015 | 93,200 | 1,211,005 | .... | 6,613,922 | 11,764,811 | 56.2% | 2,722,978 | 2,767,749 | 96.6% |
| Atlantic | 8,687 | 16,969,000 | 25,799,000 | 65.8% | 116,428 | 51,051 | 256,240 | .... | 2,230,274 | 4,191,545 | 53.2% | 756,473 | 743,346 | 98.6% |
| Pacific | 4,081 | 12,544,000 | 16,788,000 | 74.7% | 278,819 | 16,407 | 230,549 | .... | 1,774,570 | 2,394,758 | 74.1% | 630,886 | 606,690 | 100.7% |
| Alaska | 1,889 | 1,804,000 | 3,021,000 | 59.7% | 23,986 | .... | 15,704 | .... | 227,460 | 385,675 | 58.9% | 244,161 | 223,500 | 94.3% |
| TWA | 3,569 | 12,029,000 | 16,166,000 | 74.4% | 209,499 | 79,110 | 214,574 | .... | 1,870,294 | 2,940,045 | 63.6% | 540,987 | 522,074 | 100.8% |
| TOTALS | 103,337 | 110,487,000 | 184,687,000 | 59.8% | 1,042,107 | 277,789 | 2,159,924 | 146,782 | 15,268,552 | 26,907,945 | 56.4% | 5,960,569 | 5,936,078 | 96.8% |
| | | | | | Revisions for Previous Months | | | | | | | | | |
| January: | | | | | | | | | | | | | | |
| Pan American | | | | | | | | | | | | | | |
| Alaska | 1,315 | 1,236,000 | 1,968,000 | 62.8% | 21,349 | .... | 14,117 | .... | 163,028 | 270,609 | 60.2% | 181,227 | 223,777 | 69.2% |

NOTE: Data in above tabulations were compiled by American Aviation Publications from monthly reports filed by the airlines with the Civil Aeronautics Board. Figures for American Airlines include that carrier's service to Mexico but not to Canada; for C & S to Havana; for Eastern to Puerto Rico; National to Havana; and Northwest to Alaska. Operations of U.S. carriers into Canada are included in domestic reports to CAB, in accordance with CAB filing procedures.

* Figures in this colum are reported in even thousands.

# Summary of Feederline Traffic for April

| AIRLINES | REVENUE PASSENGERS | REVENUE PASSENGER MILES | AVAILABLE SEAT MILES | PASSENGER LOAD FACTOR | MAIL TON-MILES | EXPRESS TON-MILES | FREIGHT TON-MILES | TOTAL TON-MILES REV. TRAFFIC | AVAILABLE TON-MILES FLOWN | % AVAILABLE TON-MILES USED | REVENUE PLANE-MILES | SCHEDULED MILES | % SCHEDULED MILES COMPLETED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Empire | 850 | 188,000 | 788,000 | 24.0% | 1,219 | 205 | .... | 17,033 | 63,275 | 26.9% | 78,811 | 82,530 | 95.5% |
| Florida | 743 | 103,000 | 514,000 | 20.0% | 459 | 271 | .... | 85,820 | 203,037 | 42.2% | 64,242 | 67,800 | 94.7% |
| Monarch | 1,066 | 210,000 | 1,496,000 | 14.0% | 1,027 | 3,087 | 608 | 25,775 | 138,721 | 18.5% | 95,308 | 104,292 | 91.4% |
| Pioneer | 4,812 | 1,322,000 | 3,633,000 | 36.4% | 3,621 | 1,007 | .... | 120,866 | 287,051 | 42.1% | 151,031 | 154,862 | 97.5% |
| Southwest | 6,270 | 1,055,000 | 2,190,000 | 48.2% | 2,333 | 1,501 | .... | 109,574 | 249,084 | 43.9% | 122,743 | 130,933 | 93.7% |
| est Coast | 2,310 | 251,000 | 877,000 | 28.6% | 289 | 212 | .... | 22,905 | 88,665 | 25.8% | 41,946 | 44,400 | 92.1% |
| TOTALS | 16,051 | 3,129,000 | 9,498,000 | 32.9% | 8,948 | 6,283 | 608 | 381,973 | 1,029,833 | 37.1% | 554,081 | 584,817 | 94.6% |

* * * *

# 52 Cities Report 'Profits' From Airport Operations

Aviation has reached a point where a well-managed municipal airport in a city that is willing to charge off its airfield as a public improvement and forget about debt amortization can show a profit. Such is the gist of a comprehensive airport survey conducted by the International City Managers' Association for publication in the 1947 Municipal Yearbook.

The report discloses that for the first time in U. S. aviation history a significant number of city-owned airports are collecting revenues in excess of their operating costs. Fifty-two cities of over 10,000 population reported such "profits" last year, among these being Dallas, Oakland, Houston, St. Louis and Cincinnati.

These profits, ranging from a few hundred dollars to more than $85,000, represented the amounts by which airport revenues exceeded actual operating expenses. With only a few exceptions, however, no revenues from airport operations were applied toward retirement of the many millions of dollars of outstanding airport indebtedness, or even to the payment of interest on airport bonds or loans.

For example, St. Louis for the fiscal year ending last April 8 showed a neat profit ($148,595.16 revenues, $69,204.65 expenses) of nearly $50,000 from the operation of Lambert Field, but not a penny of the revenue was used to amortize the $8,000,000 capital investment in the airport.

### Larger Cities Profit

Most of the airports showing a profit last year were owned by cities in the 100,000 to 500,000 population bracket. These included:

Dallas (Love Field), revenues $105,100, expenses $78,400; Oakland (Municipal), revenues $175,000, expenses $128,600; Fort Worth (Meacham Field), revenues $273,600, expenses $189,900; Cincinnati (Lunken), revenues $36,400.37, expenses $35,468.23; Fort Wayne (Baer Field), revenues $72,618.34, expenses $50,565.11; Houston, revenues $88,589.02, expenses $38,612.01; Indianapolis, revenues $103,303.37, expenses $71,218.02.

Even when debt charges were disregarded as a legitimate charge against airport operations, a majority of the municipal airports were not self-supporting, the survey disclosed. Operating costs of 155 city-owned and city-operated airports totaled $7,074,900, while total revenues were $6,069,900, leaving a $1,055,000 deficit. These figures covered virtually all major airports in the country except those of New York City. Chicago's three city-operated airfields lacked $4,000 of taking in as much money as was spent in operating and maintaining them, and larger operating losses were reported on city-operated airports in Detroit, San Francisco, Buffalo, Baltimore and Detroit, to mention only a few.

### High Revenues

Revenues at most of the airports were at an all-time high last year, due to increased landing fees, a general upsurge in air travel, more rentals of hangar and office space, and expansion of non-aviation concessions at airports such as restaurants and shops. The rising revenues were more than offset in most instances, however, by increased operating costs. More maintenance work was required because of heavier use of the airports, and payrolls had to be increased to take care of expanding operations. The survey showed a total of 1,975 full-time and 198 part-time employes on payrolls of 178 airports in cities of over 10,000 population.

The survey brought out the fact that of 927 cities over 10,000 population, 247 own and operate one or more airports, 153 own airports leased to the federal government or private operators, and at least 489 cities do not own airports.

Among 738 cities between 5,000 and 10,000 population reporting, 84 own and operate airports, 79 lease their airports, and 579 do not own airports. A total capital investment of $26,719,900 in airports and facilities was reported by 127 cities in this population group.

## American Overseas Gets $12,000,000 Credits

American Overseas Airlines has completed negotiations for bank credits and term loans totaling $12,000,000. The funds will be used for purchase of new equipment, including eight Boeing Stratocruisers. Banks participating in the loan are The Chase National Bank, Manufacturers Trust Co., the Commercial National Bank and Trust Co., and the Bankers Trust Co., all of New York; National Bank of Detroit; Philadelphia National Bank; the California Bank and the Security-First National Bank of Los Angeles; the Marine Trust Co. of Buffalo; the Central Trust Co. of Cincinnati; and the First National Bank and the Mercantile-Commerce Bank and Trust Co. of St. Louis.

## New PCA Financing Plan May Extend Bank Debt

A new financing plan whereby Pennsylvania-Central Airlines' $4,000,000 bank debt may be extended for three years under terms acceptable both to the banks and to the airline's debenture holders is being worked out by an executive committee of the PCA board headed by G. W. Wattles.

Temporarily extended from May 1 to August 1, the debt can not be extended for three years, as desired, without consent of holders of two-thirds of its $10 million convertible income 3½% debentures, due in 1960.

Meanwhile, strong sentiment for certain changes in PCA management was seen shaping up, headed by certain members of the board.

## Banks Supply $1,700,000 Credit for Continental

A group of banks headed by Chase National Bank has granted Continental Air Lines a $1,700,000 stand-by credit to finance new equipment purchases—five Convair 240's. The airline has no funded debt, its capitalization consisting entirely of $1.25 par common stock of which 271,906 of 400,000 authorized shares are outstanding.

**Attention: PARKS GRADUATES!**

***Parks College Homecoming • August 1-2***

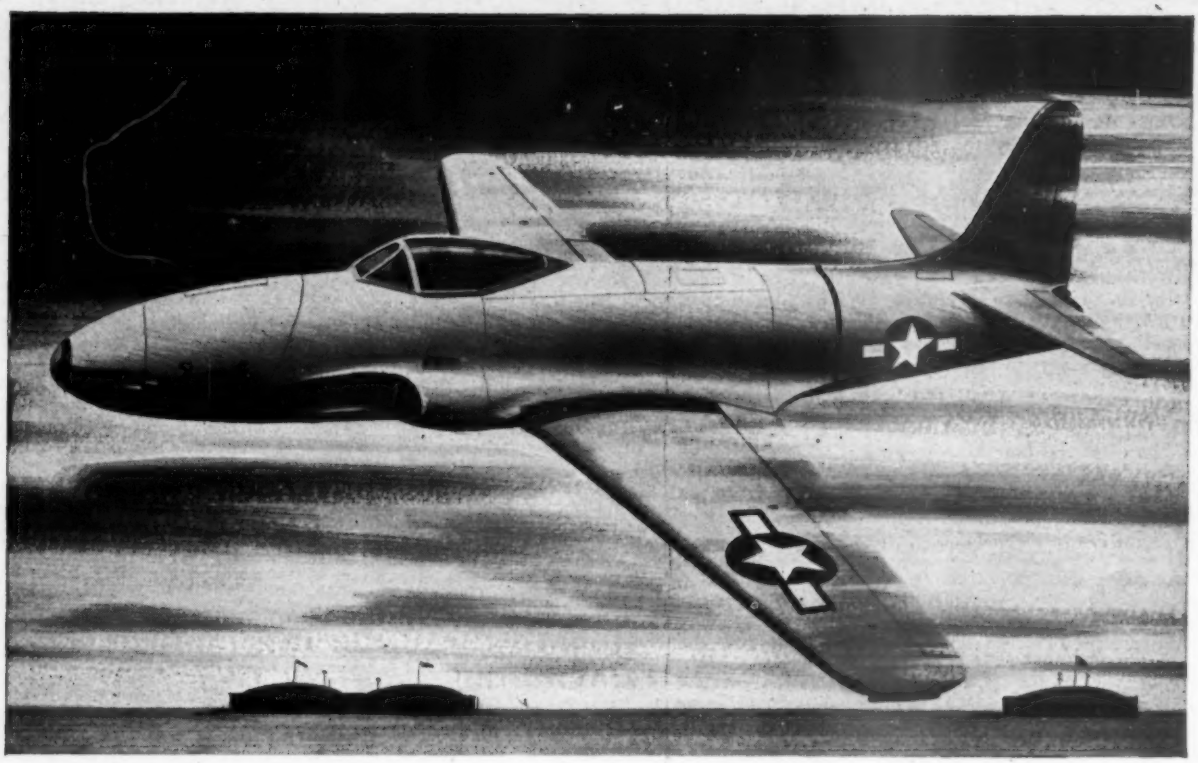
Parks College of Aeronautical Technology of St. Louis University, founded August 1, 1927 as Parks Air College, is observing its 20th Anniversary August 1, 1947, as the oldest Federally approved aviation college in the United States.

Its 2,000 graduates, former students, their wives and families are invited to attend the reunion — the first ever held by the College.

August 1st and 2nd have been set aside as anniversary observance days and August 1st through 7th, Homecoming Week. Program includes a buffet dance, dinner speeches by Lt. Gen. James "Jimmie" Doolittle and other aviation leaders, and other activities to renew acquaintances.

Write today for detailed information and hotel reservations.

***Parks Alumni Association,*** PARKS COLLEGE OF AERONAUTICAL TECHNOLOGY
EAST ST. LOUIS, ILLINOIS



# 623.8 Miles an Hour!

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The Lockheed P-80 Shooting Star with which the Army Air Forces set a new international speed record of 623.8 miles an hour at Muroc Lake, California, was powered by the new Allison Model 400 Jet Engine.

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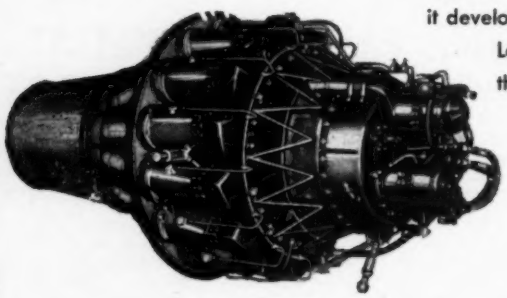
Allison is proud of the engine which it developed for this record-breaking Lockheed P-80. It represents the latest and the finest of the 2000 jet engines built by Allison.

*But no nation can ever afford to relax in its aircraft development.* So Allison continues to apply to jet engines the experience which was accumulated in its production of 70,000 war-proven liquid-cooled V-1710 engines.

This continuing research will result in more new engines to maintain for America the Air Power which means Peace Power for our land.



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# Safety Board Urges New Take-Off Weight Formula

First interim reports of the President's Special Board of Inquiry on Air Safety featured recommendations as to weight limitations and runway restrictions for four-engined aircraft operations, and a warning that Federal appropriations for air navigation and landing aids must be increased if air crashes are to be reduced.

Headed by Chairman James M. Landis of the Civil Aeronautics Board, the inquiry board has been meeting regularly for the past three weeks and was expected to issue several interim reports, with recommendations, before issuing its full report and program.

Initial recommendations included: immediate installation of lighted wind-socks at the end of runways, re-design of gust-lock equipment on DC-4's so as to give further assurance that controls could not be locked inadvertently or unintentionally under take-off conditions or while in flight, possible abandonment of 4,000-foot runways for use by four-engined planes, and a new formula for take-off weights.

### List of Recommendations

Dealing largely with findings and conclusions relating to the United Air Lines DC-4 take-off crash at La Guardia Field Memorial Day weekend, the first interim report of the board specifically recommended:

1. That the various check lists (including challenge and respond lists) prescribed by the airlines relating to both take-off and landing be approved by the Civil Aeronautics Administrator, and that the check lists issued by the airlines incorporate the specific items set forth in the standard check lists prepared by manufacturers and airlines for the different categories of transport aircraft now in use.

2. That the airlines under CAA supervision work out uniform maximum weight limitations for each runway now being used by four-engined transport planes under varying wind conditions and for the different types of such aircraft, and that the Administrator check to see that they do not exceed the maximums established by the Civil Air Regulations.

3. That an immediate study be undertaken by CAA, the Air Transport Association, the Aircraft Industries Association and the Airline Pilots Association of C.A.R. 61.7122 to assure by computation and flight tests the adequacy of the formula therein contained dealing with safety margins for take-off.

4. That on all runways under 4,000 feet, figured at the sea level equivalent, no wind component should be utilized to permit an increase in allowable gross weights (except in certain international operations), and that no landings should be made on such runways unless a wind of 25 mph or more is reported blowing within a quadrant of 45 degrees on either side into the direction of the landing (except in certain international operations and emergency landing conditions). The board said it thought these recommendations would make for greater safety than the closing of runways of under 4,000 feet.

5. That C.A.R. 61.7122 be amended as to eliminate language which permits neglecting any gradient of runways as an element in calculations of weight limitations when the gradient is not "appreciable."

6. That immediate measures be taken to further indoctrinate transport aircraft pilots in the use of the formula for computing allowable take-off weights and in the significance of the factors utilized in the formula.

7. And that a study be made of the problem of providing more accurate wind information to the pilot at both ends of each runway, with lighted wind-socks installed as an immediate interim aid at each end of each runway certified for transport operations.

With regard to the relationship between cash and crashes, the board said it felt basic improvement in air safety at present is largely a matter of financial outlay, and it warned that the "tragic pattern" of recent air crashes "will inevitably repeat itself" unless Congress provides funds for more high-intensity approach lights, ground-controlled approach (GCA) low-visibility approach systems, radar surveillance equipment and Instrument Landing Systems.

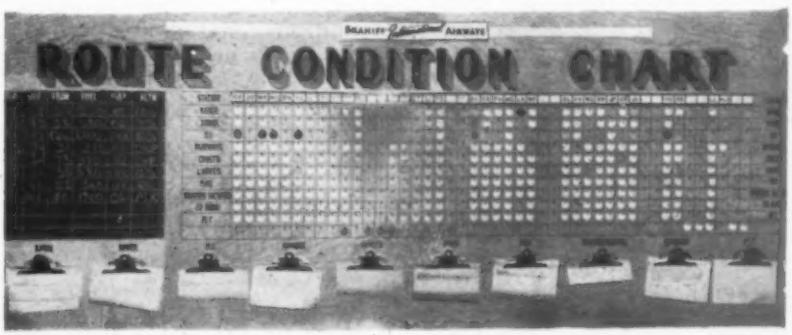
Pointing out that accidents in approaching and landing at airports are by far the largest category of serious accidents in air transportation, the board said reduction of such accidents is not a matter of regulation so much as it is a matter of installation of adequate aids.

## CAB Restriction Hampers Pressure Pattern Flying

The restrictions on operational stops at off-line points set up in the Civil Aeronautics Board's transcontinental route consolidation decision on May 19 may hamper the airlines' use of pressure pattern flying on their long non-stop flights, American Airlines contended in a petition for reconsideration filed with the Board.

By allowing American, United and TWA to consolidate certain routes, the Board made possible the inauguration of Chicago-Los Angeles non-stops, but wrote into the consolidation certificates a restriction providing that on the non-stop flights the carriers might not make any operations stops at off-line points except under emergency conditions.

American's petition says the restriction is so worded that it goes far beyond the Board's intent, and emphasized that the era of pressure pattern flying with long-range aircraft, as contemplated by the new Special Civil Air Regulation 361, makes it necessary that a carrier have a greater freedom to make off-line non-traffic stops than is permitted under the new restriction.




**Route Condition Chart**—Effective and speedy pre-flight aid for Braniff Airways pilots is this route condition chart which indicates immediately whether a route is "cleared" or has a "warning" condition. Located in flight operations center, the board through colored tabs tells hourly status of each airport and of airways between cities throughout system. Information appears on radio ranges, landing field towers, instrument landing systems, runways, construction near or on airfields, fuel availability, weather facilities, and company radio system.

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# New Fire Protection Plan Relies on Airline Volunteers

A new crash-fire protection plan designed to increase protection without increasing expenses is slated to be put into operation soon at Washington National Airport.

The plan involves nothing more complex than the use of trained airline ground personnel to augment the airport's paid full-time fire-fighting force.

It probably will be put into operation at National Airport within the next few weeks, and if, after some months of operation, it proves to be practicable both from the standpoint of efficiency and economy, it is altogether likely its adoption for use at other airports throughout the country may be recommended by the Civil Aeronautics Administration.

Fathered by necessity in the form of budget limitations, the plan was developed several months ago by Hervey Law, then administrator of National Airport and now supervisor of airports for the Port of New York Authority.

For more than five years, the major share of the expense of providing crash-fire protection at the airport had been borne by the Army, which was running large numbers of its Air Transport Command planes in and out of the Washington terminal and deemed it necessary to provide adequate crash-fire protection there. But the Army served notice last winter that, in view of the limited use of the National Airport ATC terminal thereafter contemplated and in view of Army shortages of funds and manpower, it would have to withdraw its fire-fighting force and leave the matter of protection of planes to civilian firemen.

To Law, this posed a serious problem. Obviously, the funds set up in CAA's budget for operation of National Airport would not pay for the kind of crash-fire protection needed on an air terminal with one of the heaviest traffic densities in the country. The Army's fire-fighting equipment doubtless could be purchased by CAA at a reasonable figure after being declared surplus, but finding funds with which to meet the expense of manning this equipment 24 hours a day, seven days a week, was something else.

### Airlines Cooperate

Law then conceived the idea of using a relatively small full-time fire department and supplementing this paid force with volunteer firemen recruited from airline ground personnel working around the hangars and aprons. The airlines were approached and gave tentative approval, with PCA, United, Eastern, American, TWA and Pan Am each contributing one or more volunteers from each shift of workers.

The training program began in March under the direction of Dan Mahaney, airport safety engineer, with Army personnel assisting. The Army supplied gasoline used in the training runs, and airport management furnished the boots, helmets and other necessary appurtenances. The training course ran for about six weeks, being concluded about the time the Army withdrew its fire-fighters on May 6.

Meanwhile, the airport management, through CAA, and the airlines, through the Air Transport Association, had been working on a formal agreement covering the plan but had not reached a full agreement.

So when the Army pulled out, CAA purchased a water-tank truck, two combination trucks and a jeep from them, which, together with the one fire truck CAA already owned, comprised what was regarded to be sufficient equipment. CAA then hired 20 firemen (11 more were added on July 1) to man the water-tank truck on a three-shift basis and to provide a skeleton crew of a driver and a helper for each of the other three trucks. The skeleton crews were to be filled out with airline volunteers.

That is the status of the program today. The volunteers are trained and ready, but in event of a crash-fire today they would not be permitted to help fight it, except in case of their own company's equipment. This is because CAA and ATA haven't reached agreement in the matter of financial responsibility or liability in event of death or injury incurred by a volunteer. CAA says it is willing to assume liability, with the volunteers going on their payroll the moment they leave the hangar or apron to fight a fire and staying on it until their return. The CAA says this is proper and legal, being the same procedure which applies to volunteers assisting the Forest Service in fighting a forest fire. The ATA legal department thinks it is not so simple as that, and wants a different type of agreement than that offered by CAA.

There the matter stands for the moment, but a compromise plan is being studied, and it appears likely the volunteers will be given a "go ahead" signal within two to three weeks.

The airport management estimates it would cost $140,000 a year to man all the trucks with full-time men on a three-shift basis, which would be a considerable increase over the $85,000 figure in the present budget.

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# CAA Releases List Of Compromise Cases

Following a statement in the syndicated newspaper column of Drew Pearson that United Air Lines had been "fined" $5,000 for off-airway flying, a wire service asked CAA for a list of such actions during the past year.

The CAA has followed a policy of not releasing compromise settlements but probably will do so in the future. The offering and acceptance of such a compromise settlement for violation of the civil air regulations does *not* constitute an admission of guilt to the charges by the airlines.

The list of compromise settlements since July 1, 1946 follow:

**American Airlines**—$100—An aircraft was operated from LaGuardia Field, N. Y., when the plane was not maintained in a condition for safe operation because a surface control block had been left in place on the left aileron.

**Northwest Airlines**—$800—Operated two scheduled air carrier trips into Newark Airport, N. J., landing being effected when the weather conditions were below those minimums specified in Air Carrier Operating Certificate No. 20 for such operations.

**United Airlines**—$5,000—The air carrier permitted the dispatch of several flights off-airways between Kemmerer, Wyo., and Rock Springs, Wyo.

**American Overseas Airlines**—$100—Operated a scheduled flight from an unapproved airport, (Charlottetown, Prince Edward Island) after the pilot had used his "emergency authority" in landing.

**Transcontinental and Western Air**—$500—Propeller blades installed on the No. 1 engine of an aircraft were nicked and scratched. $100—Permission to modify engines were requested by air carrier. Carrier was advised that plane could not be operated with modified engines installed, until the modification had been inspected and approved by CAA and Form ACA 309A had been installed in the aircraft. The aircraft was dispatched on a trip between Kansas City and New York before the alterations had been inspected, examined, and approved by a duly authorized CAA representative. $100—Operation of scheduled flight between Kansas City, Mo., and Chicago, Ill., when the aircraft was not in an airworthy condition in that blocks were attached to and restricted the movement of the left wing aileron during the flight.

**All American Aviation**—$400—Operated aircraft on several flights when the aircraft had not been given routine inspections within the preceding 15 hours of operation, as required.

**Pan American-Grace Airways**—$9,500—Consolidated Civil penalty action on following violations: (1) Fire-fighting equipment not maintained in a condition for adequate operations; (2) Aircraft was dispatched when the pilots were not provided with maps covering a portion of their trip; (3) Aircraft was not equipped with proper instrument lights, and (4) Company failed to maintain adequate maintenance records. $700—Permitted the operation of seven aircraft in excess of the allowable number of hours between periodic inspection.

**National Airlines**—$1,800—On several occasions the air carrier permitted first pilots to operate aircraft in air transportation without requiring them to pass an instrument check flight within 45 days prior to end of a six-months' period of service. The carrier also failed to make a written report to the administrator within seven days after completion of an unauthorized flight from New York to Spartanburg, S. C.

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**THE WORLD'S MAJOR AIR LINES!**

Aviation Activities, Inc., has introduced a new parts service for air lines the world over—a parts service based upon a full stock, ready for *immediate shipment,* of most of your requirements for the maintenance of Wright and Pratt & Whitney aircraft engines . . . at *substantial savings.* Every part shipped under the Aviation Activities emblem is *new* and in *perfect* condition . . . meticulously inspected by *CAA licensed inspectors* . . . treated for long storage . . . properly packaged and correctly labeled by part number and quantity. It's engine parts service at its best!

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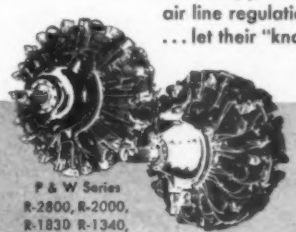

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Write or wire today for "Stock List of Parts," listing available parts. Specify whether for Wright engines, P & W engines, or both.

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## NATS Orders 100 Airborne Radar Sets

All four-engined planes of the Naval Air Transport Service will be equipped, beginning sometime next year, with a new type of airborne radar designed to provide pilots with positive safety and navigational checks when flying blind over hazardous terrain.

Known as APS-42, the new radar set is manufactured by the Houston Corporation, of Los Angeles, which has obtained a $1,000,000 order for 100 of the sets for use on NATS planes. It is a direct outgrowth of the Navy-American Airlines joint research project for development of airline-type radar.

Especially important in the design program was the need for weight saving. The resultant design calls for a set weighing only 140 pounds, sufficiently light so as not to seriously affect the transport's payload.

In the Navy transport installations, the radar scanner will be mounted either in the nose of the plane, which will give the pilot a radar "map" of the 220 degrees of terrain ahead of the plane, or under the fuselage, which will give a complete 360-degree radar "map". A five-inch PPI (Plan Position Indicator) scope will be mounted in both the pilot's and co-pilot's positions, and in certain installations a 12-inch scope will be installed in the radioman's compartment for use in navigation on long over-water flights.

By use of the radar, the pilot will be able to detect land masses up to 100 miles ahead, and when used with radar beacons, bearing and distances may be determined up to 225 miles. For terrain clearance a pencil-beam is used. This beam swings around the aircraft like a searchlight and, in effect, sets up a safety circle in which the receipt of any echo indicates danger.

Normal indication will be a PPI visual circular display on a cathode ray tube, with the center of the screen representing the position of the aircraft and the zero degree azimuth line corresponding to the heading of the aircraft.

The equipment is designed for a reliable operating life of at least 250 hours before requiring removal for bench servicing, and for a total normal service life of at least 2,000 hours with reasonable servicing and replacement of parts.

---

## Five International Lines Merge N. Y. Ramp Services

Five international carriers operating from the international (Marine) terminal at LaGuardia Field have launched a joint ramp service arrangement under which all loading and other ramp functions will be handled by an outside firm, Allied Maintenance Corp. Cooperating airlines are American Overseas, Pan American, British Overseas Airways, Sabena, and Scandinavian Airlines System.

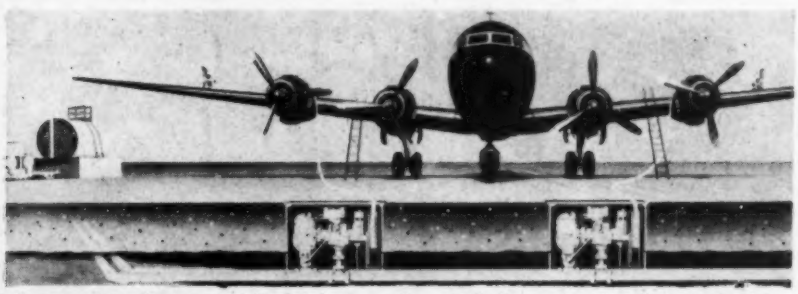
Allied Maintenance Corp., a firm which has done related work in other industries for nearly 60 years, has made ground handling studies at air terminals in Chicago, Detroit, Memphis and other cities. Ramp employes formerly employed by the airlines have been absorbed by Allied and will be designated as fleet service attendants.

Only ramp service activities are covered by the new joint arrangement. Actual aircraft maintenance will continue to be handled by the individual airlines.

---

## Navy Doubles Lockheed Maintenance Contract

A Navy contract for approximately $3,500,000 previously awarded Lockheed Aircraft Service, Inc. for maintenance and overhaul work on 90 Navy planes—60 R5D's and 30 R50's—has been amended to total more than $7,200,000 covering 124 airplanes.



**Faster Fueling**—Artist's sketch shows the superfueling system installed at the San Francisco Municipal Airport for faster, safer servicing of transport planes. Developed through cooperation of Standard Oil Co. of California, United Air Lines, and the Wayne Pump Co., the tailor-made system makes it possible to fuel a Douglas DC-6 in 10½ minutes. Pit outlets are connected by underground pipelines from a 13,000-gallon above ground tank, which is automatically maintained at the 9,000-gallon level from Standard's 1,000,000-gallon tank farm at the airport. In addition to the fueling pits, Standard uses mobile pump-and-ladder units instead of the conventional tank trucks. In operation, the unit's connection hose is joined to the nearest gasoline outlet.

## Safety Slants

THE EXHAUST pump used on the CV-240 to produce so called "jet assist" has necessitated the use of a special built-in fire extinguishing system for standby protection while starting engines. Lines from each nacelle connect to snap on couplings located on the under side of the center section of the fuselage. Discharge outlets are located at the carburetor air scoop and the augmentor. This system is entirely independent from the ship's regular fire extinguishing system and depends on externally connected $CO_2$ cylinders, thus avoiding discharging the bottles in the plane should torching occur when starting engines. In this way it differs from similar arrangements used on United's DC-3's and on Connies which provide outboard connections for the built-in system.

* * *

*Because of realization of the damage that fire can cause, the aviation industry has gone to considerable expense to provide fire protection for shops and hangars in the form of sprinklers, fire alarms, fire extinguishers, fire-proof construction, fire doors and similar facilities. While the amount and type of protection varies at each location, it is very important that we take full advantage of it by keeping it in perfect operating condition and by making sure that we do not do anything that will defeat its purpose.*

*Fire doors and fire equipment should always be kept clear and unobstructed. All employees should be instructed accordingly and all supervisory personnel should make it a part of their job to see that these instructions are observed.*

*Automatic fire doors provide a barrier to the spread of fire from one area to another, but they can only do this if they are in good operating condition and if they are kept clear at all times so that they can close readily. Any time that you block or obstruct a fire door you are courting disaster. How long is it since the fire doors in your shop or hangar were checked? Better do it now!*

* * *

One safety rule that should be strictly enforced is that requiring that a regulator and gauge be used on every nitrogen or compressed air cylinder used as a source of high pressure, and that cylinders should not be used when line air will do.

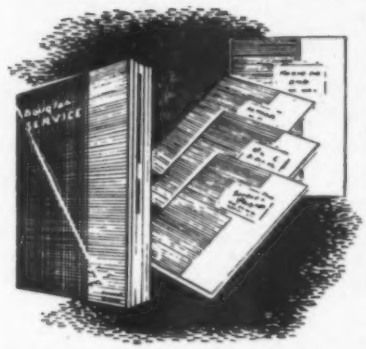
Within the past year we have heard of three different accidents caused by failure to do this. In one case a tire exploded.

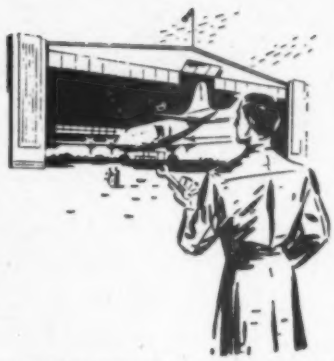
The second occurred as an old piston type DC-3 accumulator was being charged. The piston evidently had bottomed because of low fluid level. Consequently, the ship's gauge did not show the pressure being put into the accumulator, which finally failed. The damage to the plane was extensive, but fortunately no one was injured.

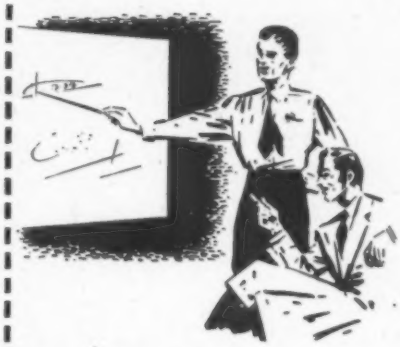
The third accident resulted in failure of hold down bolts on the head of a pressure lubricator. The mechanic suffered a compound fracture of the skull.

# DOUGLAS 9-POINT SERVICE PROGRAM

***...cuts maintenance costs***
***...keeps planes flying!***







### SERVICE PUBLICATIONS

The Douglas Service Magazine reaches 10,000 people monthly... is packed with useful data on service methods. Other Douglas publications aid operators get better service at lower cost.

### SERVICE EQUIPMENT

Hand tools, hangars, fixed docks, loading and handling equipment—these and many other types of specialized service aids help operators speed maintenance and operations.

### MAINTENANCE TRAINING

Today the finest designs in the world for mobile training aids are in Douglas files. Classroom instruction and shop demonstrations are also provided for trainees at Santa Monica.

## A Dependable, World-Wide Service Program to Aid Operators of Douglas Transports

● Are your maintenance costs in line? Is your service work done as quickly and as expertly as possible? Operators of Douglas equipment can say "Yes" to these questions if they are taking full advantage of the Douglas 9-point Service Program.

The entire resources of this company through Douglas Service are aimed at one objective: to make Douglas transports the most "usable" airplanes in the world. Experienced men are trained especially for Douglas service work. They alone have access to the latest facts so vital for fast, expert repairs at reasonable cost. Special tools, methods, and facilities... factory-made parts—all speed work under the Douglas Program.

Your profits depend on the number of hours your planes are *in the air*. Keep 'em flying and save money by using this 9-point Service Program for Douglas transports.

DOUGLAS AIRCRAFT COMPANY, INC., SANTA MONICA, CALIFORNIA

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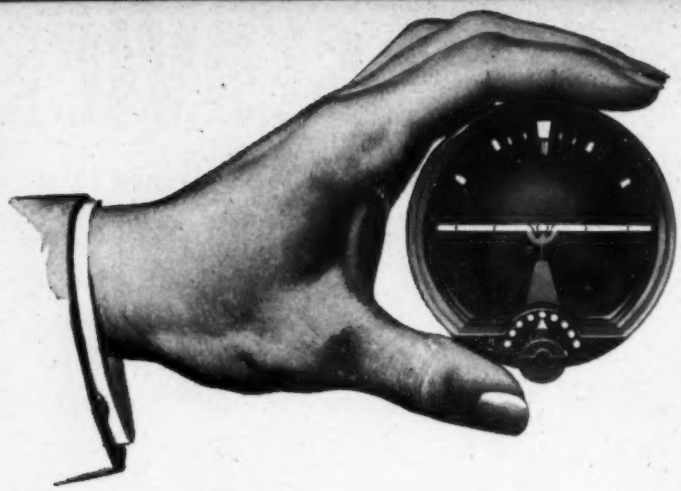
If you are not taking full advantage of the services offered by Douglas, write for a free copy of our booklet "Service Program for Douglas Transports."

***MORE PEOPLE FLY***
***MORE PLACES BY DOUGLAS***

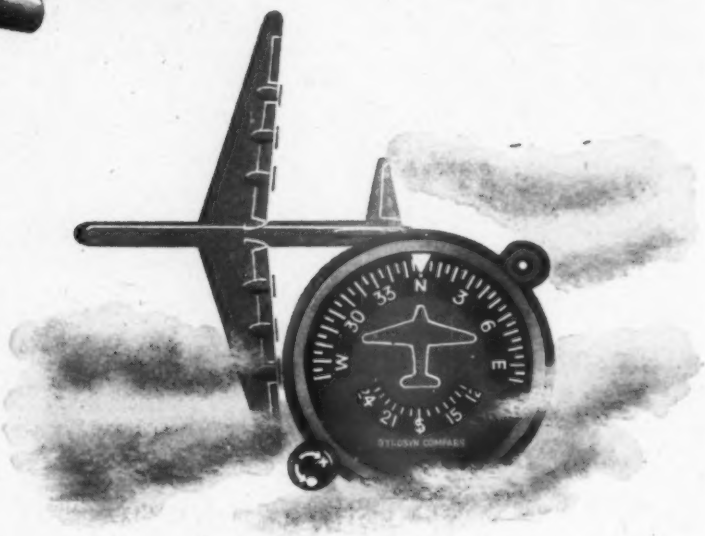


## The new Sperry H-3 Gyro-Horizon...

This small-size electric flight instrument provides the same attitude indication that has been universally accepted. In addition, the Model H-3 has increased pitch sensitivity to aid the pilot in maintaining precise *attitude control* under conditions of poor visibility or "blind flying."

## ...paired with the new Sperry C-2 Gyrosyn Compass...

This dependable team mate of the Gyro-Horizon is the pilot's pathfinder. It synchronizes with the earth's magnetic field to give extremely accurate *directional indications* under all conditions of air turbulence. Equipped with either rotating dial or pointer indicator.



## ...can be grouped for pilot's convenience

These new Sperry flight instruments adapt readily to modern instrument grouping, have no flight limitations, are non-tumbling, need no caging devices. Designed for standard 3⅛ inch panel cut-out, wholly electric (AC), free of brushes. Simple, compact, light-weight, precision-built.

. . .

AND IN THE MARINE FIELD,
*Sperry Gyro-Compass is paired with Sperry Gyro-Pilot to set a ship on the straightest, shortest course, then steer that course automatically.*

# Sperry Gyroscope Company, Inc.

EXECUTIVE OFFICES: GREAT NECK, NEW YORK • DIVISION OF THE SPERRY CORPORATION
NEW YORK · CLEVELAND · NEW ORLEANS · LOS ANGELES · SAN FRANCISCO · SEATTLE · HONOLULU

## CAA Defines Accelerated Flight Test Policy

The accelerated service tests for new aircraft promulgated by the Civil Aeronautics Administration may not turn out to be as stringent as manufacturers, who protested their adoption vigorously, have feared.

A detailed description of the procedure under which the new service testing regulations (C.A.R. amendments O4b-3, O3-1 and O4a-6) are to be administered has been released by CAA, and it indicates that industry objections were at least partially heeded.

Procedure calls for a type certification board, working with the manufacturer, to set up a proposed test program in advance of routine C.A.R. tests, and a revised program, allowing for initial flight experience and changes in design, after completion of initial tests.

On the stipulation of required flight time, CAA is allowing its field offices some latitude. Although 150 hours is suggested for transport aircraft, and 40 to 150 hours for non-transport types, depending on their complexity, these times may be reduced to allow for supplementary experience accumulated during manufacturers' tests, airline crew training, military tests, etc., and may be increased if a model or a major component represents a radical departure from earlier experience.

Full text of CAA policy on the accelerated service tests is contained in Safety Regulation Release No. 243.

## Pacific Airmotive Occupies New Base at Burbank

Pacific Airmotive Corp. is now established in its new $2,000,000 headquarters and overhaul base occupying a 22-acre site adjacent to the Lockheed Air Terminal at Burbank, Calif.

The main plant contains the equipment division, which manufactures aircraft maintenance tools, and also houses the engine, engine accessory and propeller overhaul departments, the company's national headquarters and a store for aviation supplies.

A warehouse next to the main building is used to store the $2,500,000 inventory of aircraft lines handled by the company on the West Coast.

## Cal. Eastern Extends Engine Overhaul Period

California Eastern Airways has extended the overhaul period of Pratt and Whitney R-2000-7 engines in its converted C-54's to 1,000 hours, under approval of CAA. So far as is known, this is the first 1,000-hour authorization to a transport company by CAA. Cal Eastern's engines are overhauled by the Pacific Airmotive Corp.

## New Transport Seats at a Glance

**Boeing 377 Stratocruiser**—Seats for all six customer airlines designed by Boeing engineers and built in Boeing shops. Features: wedgit fasteners for quick removal and rearrangement; arm rest control panel for reading lights, call bell, "seat occupied" sign, reclining mechanism control, ash tray and locking attachment for lunch tray; foam rubber cushions over canvas supported by lateral springs; rubber shock mounts; slip-on seat covers; removable pillow headrest (optional), and detachable middle arm rest. Day seats and berthable seats are identical in appearance, with claim that seat can be changed to berth in one minute. Day seat pair weighs 75 pounds. Cost has not been determined.

**Convair 240**—Also designed and built by the plane's manufacturer. Contract negotiations verbal thus far, but no customers have yet specified other seats. Said to be first plane to use new superfine fiberglas for seat and back cushion. Seat support is canvas-and-spring; upper portion of seat back is of thin metal. Frame is combined tubing and sheet metal. Vibration is minimized with rubber shock mounts. Weight is lower than average; 50 pounds for double seat. Cost undetermined.

**Douglas DC-6**—Dayplane seats are refinement of hydraulic mechanism type originally built in large numbers by Douglas for C-47 conversions. Hydraulic cylinder and valve arrangement (weight, less than a pound) lets seat tilt back or forward to any desired angle when button is pressed. Stewardess can erect empty seats without pushing button. Original double seat for C-47's weighed only 52 pounds; DC-6 is up to more than 70, varying considerably with upholstery (United's dayplane seats weigh 71.4 pounds, American's 74.7 for the same seat with different cloth). Sleep seats vary in weight, between 75 and 85 pounds according to location in plane. Exact cost figures not arrived at, but up somewhat from the $152 single chair price of the original hydraulic lock seat.

**Lockheed Constellation 649 and 749**—Sleeper models ordered by most customers use special seat built by Warren McArthur Corp.; dayplane types for Eastern Air Lines and Aer Rianta Teoranta have Weber Showcase & Fixture Co. seats. The basic sleeper seat (reported to be a little tricky for a novice stewardess to convert) has five different modifications to fit various positions in the cabin. Textilite, a composition of hair and felt, is used over spring construction. Upholstery can be removed quickly for cleaning, without taking the seat apart. Seats are 19½ inches between arm rests and make up into berths slightly larger than a three-quarter bed—76 by 45 inches. McArthur seats are substantially built, weighing approximately 90 pounds per chair section. The Weber dayplane seats are of simplified welded aluminum construction, weighing about 60 pounds per pair. The Irish have ordered three sleeper models and two dayplanes, plus three kits for quick conversion of the sleepers into 44, 52 or 58 passenger dayplanes with Weber seats. Lockheed says the cost of seats has increased from about $350 in the first Constellations to more than $600.

**Martin 2-0-2 and 3-0-3**—Warren McArthur seats will be used in both airplanes. Mechanism is conventional, but design indicates greater comfort. Pillow-type headrest should be particularly appealing to passengers who wish to doze without their heads rolling off the backrest. Weights are approximately 56 pounds for the 2-0-2 and 52 pounds for the 3-0-3. Basic cost is reported to be roughly $340.

## General Electric Creates Airport Lighting Section

The Lighting Division of the General Electric Co. has established an airport lighting section responsible for marketing lighting systems for large and small airports. J. Penn Rutherford, an engineer with GE for the past 10 years, heads the division.

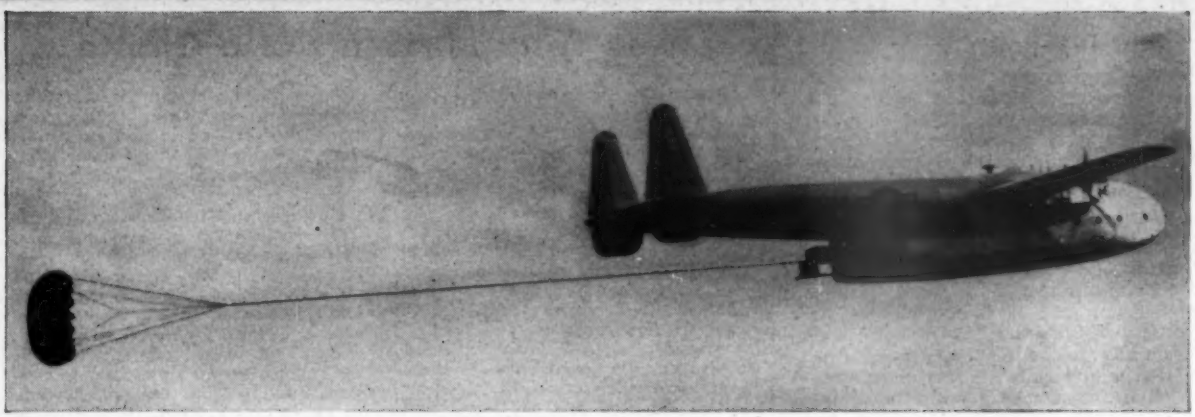
Airport lighting systems planned by GE include high-intensity runway lighting on commercial fields where instrument approaches are now installed or will be installed, a complete packaged lighting system for smaller airports, and conversion installations from present flush-mounted runway lighting to elevated lighting.

GE will supply the electrical control equipment, and American Gas Accumulator Co., of Washington, will furnish the lighting fixtures. General Electric will have sales responsibility.

## Mountain Resigns as Head Of TWA All-Weather Program

Joseph D. Mountain, veteran TWA pilot who for the past year has headed the airline's all-weather flying committee, has resigned from TWA to assume duties as special assistant to the vice president of International Standard Electric Co., an I. T. & T. subsidiary. The work originally carried on by the special all-weather committee will be coordinated by TWA's director of operations engineering, J. E. Harrington, in conjunction with the operations departments of the Transcontinental and International Divisions.

Mountain joined TWA as a co-pilot almost 10 years ago and just before the war was pilot training chief at TWA's 4-engine flight school at Albuquerque. After the war he flew as a captain until being selected to head the all-weather program.



# THERE'S BEEN A BIG DROP IN HOWITZERS

No telling what the Army Air Forces will do next with the Packet.

They've transported Airborne Troops and Air Transportable Infantry. They've towed gliders, carried weapons and cargo on maneuvers that are setting the pattern for the swift mobility of our peacetime army.

The Packet has carried jeeps, trucks, even helicopters.

Now, through the ingenious application of ribbon parachutes, a Packet can deliver a 75 mm. howitzer — by air — ready for action to forces deployed on the ground. Engineers of the Air Materiel Command rig a small "extractor" 'chute and a 90-foot ribbon 'chute to the gun. The little one pulls the cargo load backward through the big rear doors of the Packet. Once in the clear. the big 'chute blossoms and the load of more than a ton floats safely to earth.

This method, the AAF has announced, makes possible air-delivery of cargo limited only by the size of the Packet's large rear doors.

The spectacular abilities of the Packet have made it a highly efficient tool in the hands of cooperating Air Forces and Ground Forces.

They are abilities conceived by Fairchild engineers — abilities that stem from a quarter century of aviation experience that creates "the touch of tomorrow in the planes of today."

**Fairchild Aircraft**

*Division of Fairchild Engine & Airplane Corporation, Hagerstown, Maryland*

## Coordinated Search and Rescue Service Needed

Arguments favoring the establishment of a coordinated search and rescue service within the U. S. were voiced at the recent annual meeting in Washington of the Institute of Navigation.

Lieut. Comdr. A. W. Wuerker, USCG, representing the Search & Rescue Agency, told the meeting that there is no Federal agency responsible for providing search and rescue facilities, or for offering coordinated action following civil air crashes on land. Wuerker also pointed out that no agency prescribes minimum standards for crash and rescue facilities and procedures at civil airports, nor is there any standard indoctrination for pilots and ground crews.

He added that there is no standard VHF distress frequency available within the U. S., nor any requirement that aircraft be equipped to transmit on the standard 500 kilocycle distress frequency. Another point mentioned was that aircraft passengers are not briefed, as in marine transport, on the location and operation of emergency exits and safety equipment.

Wuerker pointed out that over two years ago a special committee representing federal aviation agencies drafted a manual for the control of instrument flight rule traffic (ANC/IFR) which included a section on search and rescue facilities. The opening paragraph of this section stated:

"The purpose of including a part on search and rescue in this manual is to assure standard search and rescue alerting procedures. In general, air traffic control centers do not have either direct or indirect control of rescue facilities. Therefore, it is necessary to specify air traffic control center functions, responsibilities, and procedures for alerting such facilities."

The Air Coordinating Committee, Wuerker said, is making a study of the requirements for a search and rescue program to meet the needs of domestic civil aviation as well as the international obligations of the U. S. This program will be designed to cover all major needs in regard to indoctrination, coordination and establishment of minimum facilities.

## Nearly 1,000 Navigation Units Ordered for Airlines

Between 800 and 1,000 navigation receivers which operate on Instrument Landing System or Omni-Directional Range and combine navigational information needed by pilots are on order for certificated airlines from three companies.

Specifications for the receivers were drawn up by the aircraft radio committee of Aeronautical Radio, Inc., with standardization of equipment a basic objective. Federal Telephone and Radio Corp., Collins Radio Co., and Bendix Aviation, which was the Army contractor on the project, all make the identical receivers. Development was started in 1939.

The air borne equipment is built to tolerances closer than those in test equipment. Aeronautical Radio emphasized that the receivers are not experimental, but are production models. One of the chief features is freedom from precipitation static which provides accuracies heretofore not obtainable and consequently contributing to safety of operation.

The instrumentation is comparatively simple, a cross-point indicator providing the pilot with necessary information. Aeronautical Radio said it is a proven system and many others, both ground and airborne are still in the laboratory in comparison. The receiver weighs 23 pounds.

### Transfer Firm For Air Cargo

Colonial Transfer Co., Miami, Fla., has established an air cargo division for transfer and delivery of air shipments in and out of the Miami area. F. W. Wiggin is general agent of the division. The company will maintain offices at International airport and in downtown Miami, plus an in-town consolidated air cargo terminal and warehouse.

## Shell Develops New Engine Oil, General Purpose Grease

Two new products—an additive type aircraft engine lubricating oil and a general purpose aircraft grease—have been developed by the Shell Oil Company, Inc.

The new oil, known as AeroShell Oil D, was developed to keep pace with the increasingly severe operating conditions of modern aircraft engines made possible by advances in metallurgy, design and operating experience, according to B. G. Symon, manager of the company's lubrications department.

By helping prevent harmful deposits of sludge, lacquer and other materials on engine parts, the new oil is designed to extend the period between overhauls and reduce the number of engine replacement parts needed for safe operation.

The new grease, called AeroShell Grease 6, can be used to handle about 90% of required aircraft lubrication, including wheel bearings and general airframeax applications, the company claims.

### Astral Window in NWA Boeings

Boeing Stratocruisers being built for Northwest Airlines will feature an "astral window" instead of the conventional navigator's "bubble."

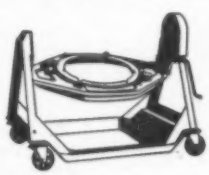

CALL ON Cobell

* For any of over 11,000 different AIRCRAFT COMPONENTS
* At Rock-Bottom Prices
* Deliveries NOW!

Government Surplus Aircraft Parts and Components, Engines, Engine Parts, Hand Tools, Flying Field and Hangar Equipment and miscellaneous supplies.

TYPICAL BARGAIN:

Pratt & Whitney ENGINE OVERHAUL STAND (TAM 1785 TYPE) — Used for holding Double Wasp Engines for assembly or disassembly, complete with drip pan and adapter plate no. TC-51260, Only $143.85



Send for general brochure and for catalogs listing particular aviation items you need.

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# HOW TACA* BEAT THE BUSH...

*Transportes Aereos Centro-Americanos

**The Aerojet Jato Motor Carries C. A. A. Rocket Motor Certificate No. R-1.**

When you're flying in and out of the bush—that's the time when safety has to be something more than a word. Engine failure immediately *at* or *after* take-off means a crash.

Down in Nicaragua, TACA Airways demonstrated with Aerojet Jato Motors that its DC-3s could get in and out of the bush with this unequalled safety factor. For Aerojet means adequate reserve power for engine failures, overcoming short runways, lifting increased payloads.

TACA operates under typical bush conditions at La Cumplida, supply point for the famous La Luz gold mine, 30 minutes away by air—or five days by horseback. With no roads, La Luz, jungle city of 4,000, depends on air transport for everything coming in, going out. Aerojet can help solve tough operating problems. Why not call on Aerojet to jet-assist you?

***Greater take-off safety factors • Increased payloads • Bigger fuel reserve • Reserve power for emergencies***

**Aerojet**

**PACKAGED HORSEPOWER**

**AEROJET ENGINEERING CORPORATION • AZUSA, CALIF. • SUBSIDIARY OF THE GENERAL TIRE & RUBBER CO.**

## Aircraft Slot Antenna

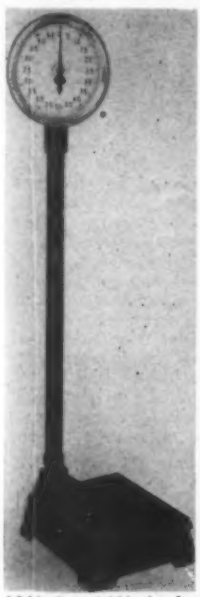
A new type of aircraft slot antenna which may be fitted into the wing or fuselage surface, thus eliminating antenna aerodynamic drag, is being produced by the Aviation Section of RCA Engineering Products Department. Producing the radiation

pattern required for aircraft radar altimeters, the new device, RCA Type MI-19727, is a cavity resonating slot antenna suitable for transmission in the 420 to 460 megacycle band. It is designed for operation in high-speed planes and replaces the protruding half-wave dipole antenna now in use. A small circular vent in the plexiglass plate helps remove any moisture which might collect in the aluminum cavity.

•

## Cargo and Baggage Scales

Detecto Scales, Inc., 1 Main St., Brooklyn, N. Y. announces that their Dial-Platform air terminal scale is now available for immediate delivery. The combination lever and spring scale is being manufactured in weight capacities ranging from 60 to 300 pounds, with the dial face reaching either 36 or 51 inches above the floor. The higher dial is intended to keep it in full view of the operator from remote positions and when weighing odd-sized items. Platform dimensions are 10½ by 14½ inches.



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## Communications Jig

A new type jig designed to facilitate maintenance of the frequency shift motor of the high frequency communications unit aboard United Air Lines' planes has been developed by John R. Brinkman, UAL mechanic at San Francisco. The jig supports the drive shaft of the motor while the taper pin is being driven out from the brake collar and also while it is being replaced. It can also be used to support the motor while drilling and reaming the shaft and collar. It is provided with a mounting for attaching a dial indicator to check shaft alignment.

•

## Pocket-Size Calculator

A new pocket-size calculator designed to enable pilots to determine rapidly and accurately the allowable take-off and landing weight of transport planes has been announced by Luttrell & Senior, Inc., aviation consultants. The calculator, composed of a small partial disc superimposed on a master disc, takes into account field latitude, runway length, wind and obstacle height and distance in accordance with CAR Transport Category regulations. Setting the two discs at known factors, the answer of safe take-off or landing weight is given promptly. One side of the master disc deals with take-offs, the other side with landings.

•

## Duplex Micrometer

Measurement of crankshafts, bearings and inserts with the same instrument and without removing crankshafts is possible with this Rimat duplex micrometer, developed by the Richards Machine Tool Co., 124 S. Isabel St., Glendale 5, Calif. Available in two sizes with ranges from one and a half inches, and from three to four inches, the smaller micrometer sells boxed for $25 and the larger for $30. A set of two is priced at $50.

•

## Small Wind Tunnels

Two standard designs of small wind tunnels suitable for research work and laboratory demonstrations are being offered by the Aerolab Development Co., Pasadena, Calif. One design is the closed return with atmospheric vent, and the other is the open return venturi type. Working section in both is 30" x 45" x 48" long. Company plans to furnish complete blueprints and also to fabricate and supply the balance systems and other parts which are not readily constructed on the job or which are not standard equipment readily available.

## Propeller Testing Machine

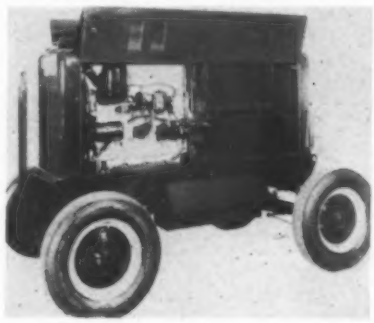
An easy-to-operate machine for testing various models of hydromatic propellers and distributor valves in current use has been designed by Greer Hydraulics, Inc., working in cooperation with the engineering and service departments of Hamilton

Standard Propellers. Outstanding features are: ample power to handle latest type propeller domes, solenoid operated shut-off valves, positive action controls permitting no lost motion, and portable power unit which may be used for numerous operations. Complete assembly is comprised of a sturdy assembly and test table and a completely self-contained power unit, mounted on four rubber-tired casters, two of which swivel.

•

## Portable Generating Plants

Three models of portable gasoline engine-driven electric generating plants for supplying DC power for ground service of airplanes, and especially for energizing the electrical systems of planes, are being offered by Motor Generator Corp., Troy, Ohio. Model No. 595, with 15 kw generator rated 28.5 volts at 500 am-



peres continuous duty is recommended for servicing DC-3, DC-4 and other similar aircraft. Standard equipment includes DC ammeter, DC voltmeter, illuminating light, field rheostat, reverse current relay, voltage regulator, manual on-off switch (ignition key lock), push-button starter, 6-volt receptacle, engine hour meter, oil pressure gauge, water temperature gauge, battery charging ammeter, normally open switch to cut in the ammeter for reading load, and DC distribution terminals.

# These businesses may seem different- but they're all alike, in one thing

Scripts and recordings for radio programs must get there in a hurry. This is one reason why stations, networks and agencies are big users of Air Express. Here's where *speed pays.*

Quickest way to get samples, new products, and presentations for new lines to salesmen on the road and to distributors is by Air Express. Beats competition; sales come quicker! *Speed pays!*

Speed is essential in delivery of all kinds of valuable papers, stock certificates, bank checks, etc. The safe, quick way to ship them is by Air Express. *Speed pays.*

## Speed pays in your business, too!

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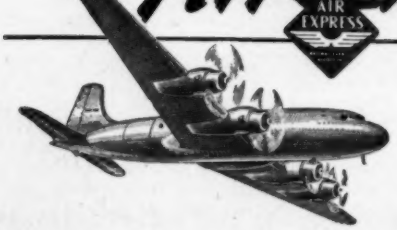


Write today for Schedule of Domestic and International Rates. Address Air Express Division, Railway Express Agency, 230 Park Ave., New York 17. Or ask at any Airline or Railway Express office. Air Express Division, Railway Express Agency, representing the Airlines of the United States.


# 30 Hour Check

By DAVID SHAWE

RAILWAY EXPRESS AGENCY recently made a survey at LaGuardia to determine how long it takes an incoming express shipment to be delivered from plane to airport express office. During the test period, which may or may not have been typical of day-in, day-out operations, TWA made the best showing with a 19 minute average—eight minutes faster than the average of the runner-up and 39 minutes faster than the booby prize winner.

•

*Slick Airways, which last summer insulated its C-46 cargo fleet with three and four-ply fiberglas and also installed dry ice cooling plants in the planes, has now installed a fuselage sprinkler system to reduce heat absorbtion while the planes are loading or delayed on the ground. The installation consists simply of a perforated pipe along the backbone of the outer fuselage, to which an ordinary hose can be connected at any of Slick's freight stations across the country. It eliminates virtually all fuselage heat absorbtion and confines cabin temperature changes to dissipation through open cargo doors.*

*Having long been of the opinion that oven-like cabins cost the airlines a lot of passengers each summer (and having recently waited out a lot of departures at airports in the Southwest section of the country), we wish the passenger carriers would do a little more about cabin cooling. Perhaps the Slick system is a little primitive for plush passenger planes, but Douglas has recommended a number of summer modifications which could be used more widely than they are, and a few of the airlines have worked out their own summer cooling methods. None of them does a perfect job of keeping passengers comfortable, but even American Airlines' little cabin fans make a lot of difference.*

•

Several controversial points on the use of ILS have come up for industry discussion, but do not seem likely to be settled until pilots have used ILS through a full winter's operations. It seems to be agreed that the back course of ILS provides a good navigational aid, particularly when one or two markers are provided on the back course, but more experience seems needed before a decision is reached on whether the same minimums can be allowed when using the back course as on the front course. The question of whether a compass locator is necessary at the middle marker of the ILS approach seems to call for more experience before industry-wide agreement is reached. Lack of agreement also is noted on the question of whether the glide path actually is necessary if compass locators at the middle and outer markers function properly. There also is no general agreement on whether a second ILS installation, at airports where it is authorized should be located as a reciprocal to the primary installation or at a 90 degree angle to the primary ILS. In all probability this latter question will develop into a local problem to be determined by airport conditions rather than by an industry policy.

# WILCOX 2500 WATT Transmitter

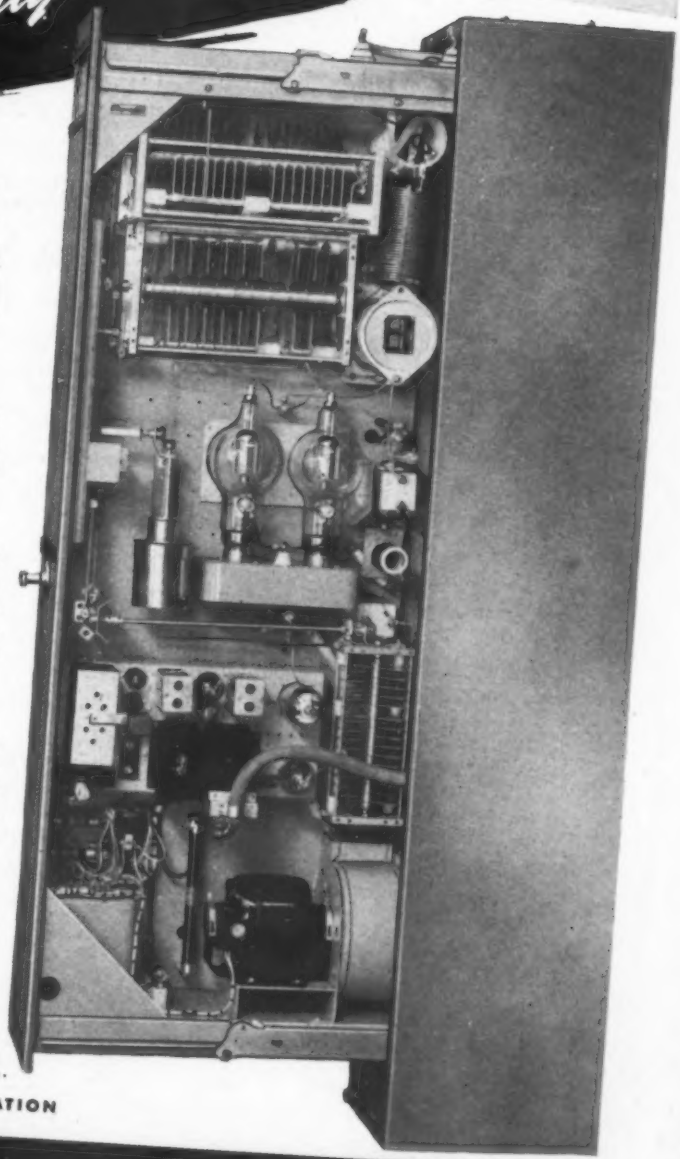
## Performance
## Easy Maintenance
## Dependability

The WILCOX 96C Transmitter is used throughout the world by the Army Air Force Communications System, and by foreign and domestic air-carriers. It has earned the respect of operators and engineers because:

✓ 1 **SIMULTANEOUS CHANNEL OPERATION** on several frequencies brings new flexibility and operational ease; increases by 3 times the volume of traffic normally handled.

✓ 2 **INSTANTLY REMOVABLE COMPONENTS** make maintenance easy. The transmitter slides from its cabinet like a desk drawer. Plugs, receptacles, and clips make all components easily removable for servicing while adjacent channels continue to operate.

✓ 3 **RESEARCH AND ENGINEERING** combined with modern production techniques have produced a transmitter capable of sustained operation through all conditions of temperature, humidity, and weather.



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## Product Literature

A folder discussing decarbonizing, degreasing and bright-cleaning blocks, pistons, crankcase assemblies, carburetors and other equipment with Cee-Bee Samson cold cleaner is available from Cee-Bee Chemical Co., 655 E. Gage Ave., Los Angeles. The four-page folder describes open tank immersion as well as cleaning in the Samson junior and midget parts cleaning units.

• • • •

*A list of 44 different grades of Textolite laminated plastic sheet material, with discussion of their electrical, mechanical and physical properties, is included in a 64-page booklet prepared by the Plastics Division of General Electric Co., Pittsfield, Mass. Other information in the book covers Textolite tubes and rods, bearing materials, gears, and fabricating methods.*

## Classified Advertising

**The rates for advertising in this section are as follows: "Help Wanted," "Positions Wanted," "Aircraft Wanted or For Sale," and all other classifications $1.00 a line, minimum charge $4.00. Estimate bold face heads 30 letters and spaces per line; light body face 40 per line; box numbers add two lines. Terms, cash with order. Forms close 20 days preceding publication date. Rates for display advertisements upon request. Address all correspondence to Classified Advertising Department, AMERICAN AVIATION PUBLICATIONS, 1317 F Street N. W., Washington 4, D. C.**

### NOTICE TO BIDDERS

NOTICE TO BIDDERS. Sealed bids for the leasing and operating of a public airport known as Linden Airport, formerly known as the Eastern Aircraft Airport at Linden, N. J., located at U. S. Route 1, State Highway Route 25, and Stiles Street in the City of Linden, Union County, New Jersey, will be received by the Governing Body of the City of Linden at the City Hall, Wood Avenue and Blancke Street, Linden, New Jersey, until 9 P. M. Eastern Daylight Saving Time on Tuesday, the 19th day of August, 1947, and then publicly opened and read. Bidders may obtain "Information for Bidders and Specifications" and additional information from City Clerk, City Hall, Linden, New Jersey. Each bidder must deposit with his Bid a certified check made payable to the order of the City of Linden in the amount of $5,000.00, subject to the conditions provided in the "Information for Bidders and Specifications." No bidder may withdraw his bid within forty-five (45) days after the actual date of the opening thereof. The right is reserved to reject any or all bids, to waive any informalities in the bids, and to accept the bid deemed most favorable to the interests of the City of Linden. By order of the Common Council of the City of Linden. Thomas J. Wieser, City Clerk.

### FOR SALE

Twin Cessna Executive. Heavy Wing. Flares. Baggage door. Ladder. Passing light. Recovered. Reupholstered. Licensed. Metal props. Two radio receivers and one transmitter in nose. Airline equipped all instruments day and night. C. A. Cooper, Jr., 434 S. Bedford Drive, Beverly Hills, California. Crestview 1-4130. Price $5,500.

For Sale: Twin Engine Beechcraft Executive. Only 300 hours. Custom built interior. A great buy. Box No. 580, American Aviation, 1317 F St., N. W., Washington 4, D. C.

AERONAUTICAL BOOKS. For any book or publication on aviation write to us. We have them in stock and can give prompt service. Send for our catalog, or when in Chicago browse around our bookstore. We are exclusive dealers in aviation literature. AVIATION HOUSE, Room 1514, 17 N. State St., Chicago 2, Illinois.

New BG-4B2S Spark Plugs 75c each. Discount to dealers. Send for latest catalogue. Karl Ort, Dept. SP-9, York, Penna.

### FOR SALE

BEECHCRAFT (airline equipped) MODEL D 18 S; sacrifice price $38,000; nine place; new March 1946 (not surplus or converted); P&W 450 engines, supercharged, 110 hours since overhaul; constant-speed props; transmitter, receiver, ADF, marker beacon; tires, brakes, batteries new; ship 1100 hours; never damaged; licensed day and night instrument; new ship guaranty. Wire or write Donald A. Duff & Associates, 1437 Monaco, Denver, Colorado.

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- **Douglas DC-3 Airplane Parts, Accessories and Ground Equipment**
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**ALSO**

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These inventories are available for inspection at our warehouses at Astoria, L. I., New York, Tulsa, Oklahoma and Fort Worth, Texas, and offered F.O.B. these points for domestic shipment at very attractive prices.

**Prompt attention will be given to all requests for quotations directed to the attention of the Superintendent of Stores at the above address.**

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## Wings of Yesterday

### 25 Years Ago

U. S. Air Mail completed one year on transcontinental route, carrying 49,000,000 letters without serious accident. (July 16, 1922)

**Aeromarine flying boat "Wolverine" established a speed record between Cleveland and Detroit, covering 117 miles in 82 minutes with seven passengers. (July 21, 1922)**

### 15 Years Ago

Pan American Airways took over from Transamerican Air Lines of Detroit, all concessions and operating agreements in connection with the proposed Northern or Arctic air route to Europe.

**Robert M. Love, president, Inter City Airlines, Boston, Mass., started building up a short haul passenger service between New England cities.**

There were 18,069 pilots and 7,439 aircraft holding active Department of Commerce licenses on July 1, 1932, according to Col. Clarence M. Young, Asst. Secretary of Commerce for Aeronautics. Those holding pilots' licenses as of July included 7,021 of transport grade, 1,376 limited commercial, 35 industrial pilots, and 9,637 licensed in the private classification.

## Letters

### Visibility for Passengers

To the Editor:

Regarding your editorial on the big windows in the de Havilland Dove:

With pardonable pride, let me refer you to the Martin 2-0-2. Our windows are big enough to see out of, and a lot of people already have told us how much they appreciate them. Ask Keith Saunders, who flew in the 2-0-2 during our press preview April 10.

We weren't as innocent as de Havilland, though. Strangely enough, we purposely designed our windows so they could be seen out of—big and clear and properly located.

Specifically, the 2-0-2 windows are large, rectangular—18⅜ inches by 16½ inches—and at every seat, whether you sit next to the window or next to the aisle, you have full visibility. More, we think, than in any other airliner in use today.

We're kind of "devilish," too, (to use your words) because we also subscribe to what you call "the curious British idea" of making the passenger comfortable. We spent several months before the 2-0-2 was even on paper just talking to hostesses, traffic representatives and passengers, getting their ideas on what they wanted in an airliner.

RICHARD W. DARROW,
Director of Public Relations,
The Glenn L. Martin Co.

*(Editor's Note: All credit to the Martin Company for vastly improving the visibility for passengers. Admittedly, the new windows are much better. For the record, however, the Dove windows measure 25.8 inches by 15 inches.)*

---

To the Editor:

I notice in your editorial on page 6 of your June 15 issue that you are impressed with the size of the windows on the de Havilland Dove.

I hope that you will have your secretary get from the file a photograph of the Model 34 Beechcraft in flight and look at it from the point of view of the size of the windows. We have had many comments from the people who have seen this airplane that the windows are too big to be structurally efficient. Maybe it would be possible to cut a few pounds off the airplane if the windows were smaller, but we feel that we should take full advantage of the cleanness of the airplane and its high wing configuration to give the passengers the best possible view. Therefore, the windows are not only very large but also frost proof by having two panes of glass between which warm air is circulated continuously. The inner pane is instantly removable so that the surfaces of the window may be cleaned without any difficulty whatever. There will be no excuse for dirty windows or frosted windows in the Model 34 Beechcraft.

Also, due to the elimination of the engine nacelles, the passenger has an uninterrupted view from almost straight down to a level above the horizon. We believe that the only comparable view for air passengers available in the past has been that from the gondola of the large dirigibles operated by Germany prior to the war. Previous air transports have either been of low wing type which give a very restricted view (including the Dove), or a high wing airplane similar to the Ford which had fixed landing gear, engine nacelles and struts in the way of the view of the passengers.

We were glad to see you emphasize the desirability of a view for the passengers because some of the reactions that we have got from airline evaluation groups have confirmed your stand. They state that if you provide a "first rider" with a view it is likely that he will be pleased with his initial trip in an airplane and come back for more. However, they admit that other considerations have been considered more important than visibility in the past.

JOHN P. GATY
Vice President-General Manager
Beech Aircraft Corp.

*(Editor's Note: For the record, windows on the Model 34 Beechcraft are 20 inches wide by 15 inches high, giving a total of 300 square inches. Dove windows, measuring 25.8 x 15 inches, total 387 square inches.)*

---

### On Cigar Smoking

To the Editor:

Your recent article in your fine independent magazine, *American Aviation*, describing the DC-6 maiden transcontinental flight pointed out the alacrity with which passengers availed themselves of the lifting on that plane of the discomforting general airline ban on cigar smoking. This masculine pleasure, the enjoyment of a fine cigar, discriminated against by nearly all domestic airlines that I've ever used, has been prohibited from early commercial days.

If memory serves, the original modification of the safety ban on all smoking to permit the use of cigarettes, took place when the airlines were striving to break the prejudice of the female public against flying. In other words, cigarette smoking was permitted in part as an inducement to lady patrons and cigar smoking banned as allegedly offensive to ladies. May I suggest that the general cigar smoking ban is antique and should be reconsidered by airline management on the basis of the following:

1. The selling of the female public on air transportation has been accomplished, to all intents and purposes.
2. The ventilating system on all commercial planes in use is very good, being hardly less than drafty.
3. The nervous and physical comfort of a large and influential segment of passengers is interfered with by the ban.
4. The cigar which is self-extinguishing has a safety factor not shown by the continuous burning cigarette.
5. The ban represents a competitive loss to the railroads as regards passenger comfort.

Undoubtedly you are aware that a cigar is the only palatable smoke in the air as the majority of former patrol and bomber pilots will attest.

DONALD GREGG, Ass't V. P.,
Faber, Coe & Gregg of Penna., Inc.
Imported & Domestic Cigars,
Pittsburgh, Penna.

*(Editor's Note: The news item referred to described a special flight in a United sleeper DC-6, which has a reasonably spacious men's lounge. Airlines contacted were emphatic that they have not removed the ban on cigar smoking. Most passengers protest against cigar smoking and new ventilating systems are not yet good enough to remove quickly heavy smoke. As for a cigar being "the only palatable smoke in the air," well, some prefer cigars, some prefer pipes, some prefer cigarettes, some chew, and others don't smoke at all. So take your choice. But prevalent opinion is to keep cigar smoking out of airplanes except perhaps in lounges.)*

---

### Editorial May Help

To the Editor:

As one of the first charter subscribers to your magazine in June 1937, may I offer tardy, but nevertheless sincere, congratulations on your 10th birthday? All of us have enjoyed the magazine and look forward to every issue; it has been a great help to us in keeping up-to-date with, and in some cases, ahead of things that directly affect our business.

May I also give you my most sincere thanks for your editorial on Page 8 of the July 1 issue entitled "The Public Waits." By changing location names and substituting our own company's name for Chesapeake Airways in this editorial, this story applies exactly to our own situation, and we certainly hope that the editorial will serve to bring a decision for all of us local operators just as soon as possible.

Since we are also the operators of MacArthur Airport, developments here during the last year are a source of some pride to us and it is my sincere hope that you will find time to drop in on us and see what has been done with a very rural location in the matter of supplying a peripheral airport and a safety valve for the New York Metropolitan Area traffic problem.

FREDERICK H. SMITH,
Chairman of the Board
Island Air Ferries, Inc.,
Bohemia, New York.

---

## Obituary

### Eddie V. Piersol

Eddie V. Piersol, director of public relations for Pacific Overseas Airlines, and former editorial staff member of AMERICAN AVIATION, died unexpectedly July 5 in Los Angeles. He had been active in aviation for many years and had headed up public relations for Consairways during the war. He is survived by Nan Butell Piersol, also a former AMERICAN AVIATION employe.

# *Collins flies with Northwest to the* ORIENT

About the time this message appears, Northwest Orient Airlines planes will begin landing on the runways of Tokyo, Shanghai and Manila, on regularly scheduled flights.

Each one of Northwest's big trans-ocean ships will be equipped with Collins 17H-2 radio transmitters and 18S-2 transmitter-receivers.

Collins congratulates Northwest on this tremendous extension of a standard of service which for many years has commanded deep respect and confidence from the American public and industry.

**IN RADIO COMMUNICATIONS, IT'S . . .**

COLLINS

**COLLINS RADIO COMPANY, Cedar Rapids, Iowa**

**11 West 42nd Street, New York 18, N. Y.** **458 South Spring Street, Los Angeles 13, California**

## TELLIN' THE WORLD—
## YOU'VE GOT A
# FAIRCHILD F-24

You've also got great expectations! Of fun, excitement, whizzing through space! Well, we can tell you . . . and we've had plenty of experience in aircraft . . . flying *is* wonderful! And it's even *more* so, if you know the following:

It's wise to use only fine quality fuels and lubricants. Remember that. And keep in mind also, you can always get excellent quality aviation products by asking for *Phillips 66!*

You'll see—at airports over the entire mid-west—orange and black shields marked Phillips 66. Those signs invite you to stop and take on carefully developed engine oils and UNleaded 80-octane gasoline! Yes, Phillips is interested in helping your plane to better performance and a cleaner engine!

Again, you'll see!—when you meet us at our air field "66" signs! The Aviation Department, Phillips Petroleum Company, Bartlesville, Oklahoma.

Phillips 66

AVIATION GASOLINE